Panasonic®

Operating Instructions

Network Camera Recorder with Viewer Software

Model No. **BB-HNP15A**

Please read this document before using and save this document for future reference.

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Main Features

Full Screen Display (see page 37)

New full-screen display function.

You can expand the window to cover the entire desktop.

Display Recorded Images as a Chart (see page 65)

You can view the list of recorded images as a chart.
The camera name, recording time and recording mode can all be checked from the chart.

Simultaneous Playback (see page 71)

On the multi-playback page you can simultaneously play the recorded images from a maximum of 4 cameras.

Customize the Camera Screen-layout (see page 78 and 82)

You can register up to 64 cameras.
You can enlarge a camera display and rearrange the order of camera screens on the multi-monitoring page.

Convert in Several Image Formats (see page 90)

You can convert recorded images to several audio and video formats.

(MPG/JPG/WAV/ASF/AVI)

The converted images can be played back with Windows® Media® Player.

Recording Modes (see page 55)

10 timers can be set for each camera.

In addition, alarm mode*, which starts recording after detecting an action such as doors or windows being opened and closed, is available.

Audio Transmission (see page 117)

Using this software, you can transmit audio to a camera that supports transmission.

Remote Access (see page 105)

Using the recording software on a separate PC (Personal Computer), you can view the recorded images from a Panasonic Network Camera connected to a PC (remote server) registered with the recording software.

* To set alarm recording, an outside sensor need to be attached to the camera. See “Operating Instructions” for your camera for details.

Screen shots in this document

Screen shots in this document were taken running this software on Windows XP. The screens displayed when using a different operating system may differ slightly.

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System Requirements for your PC

The following technical specifications are recommended for this software to work properly with your PC and network.

Items	Description
Operating System	Microsoft® Windows Vista® Microsoft® Windows® XP Microsoft® Windows® Server 2003
Resolution	1280 x 1024 pixel or higher
Web Browser	Internet Explorer 6.0 or later
File System	NTFS (NT File System)
Audio[*1]	Audio output feature (Speaker or Headphones) Audio input feature (Microphone)

[*1] When using a camera that supports audio.

Note

- The recommended number of cameras that you can register, monitor and record simultaneously differs depending on the specifications of your computer.
  See page 131 for details.
- The approximate size of the recorded image can be calculated from the recording method and the number of days to record.
  Change the hard disk capacity considering [Calculated disk capacity to record] (see page 24) and file size shown on page 15.

1 Product Introduction

1.1 Looking at Installation Procedure

You must perform the following steps to use this software.

Read the End-User License Agreement (see attached leaflet).
You cannot install this software if you disagree.
(The legal agreement is required when installing this software.)

Install this software (see Important Information).

Performing License Registration (see page 10).
To use this software, the license registration is necessary.
(The attached registration code stickers are required.)

Setting Recording Environment (see page 12).

- Setting a folder to save recorded images.
- Setting the proxy server when using one.

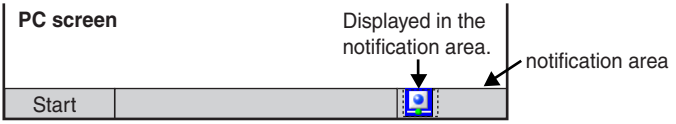
Configure the camera (see page 19).

Monitoring the camera (see page 49).
Recording the image (see page 55).
Playing the recorded images (see page 64).

1.2 Starting or Closing This Software

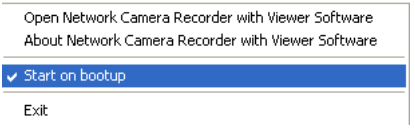
This software starts automatically when you boot up the PC.

- is displayed in the notification area while this software is running.



Note

To not start this software automatically when booting up the PC, right-click and uncheck [Start on bootup] from the menu.



1.2.1 Starting Operation Window

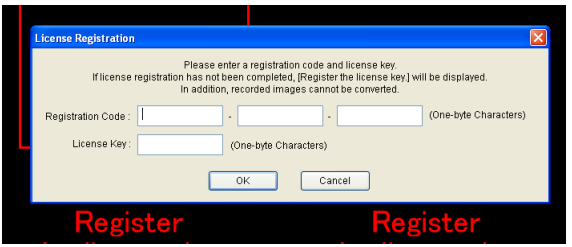
Double-click on the desktop to start this software.

- Operation window of this software is displayed.

Note

- You can also start the operation window through the following procedures.
  - From the [Start] menu, select [All Programs] → [Network Camera Recorder with Viewer Software] → [Network Camera Recorder with Viewer Software].
  - From Explorer, double-click [ncr3.exe] in the location where the software was installed.
- These softwares cannot work at the same time. Use only a software.
- To use this software, perform the license registration.

  If no license has been registered when the operation window is started, [Register the license key] will be displayed. Follow the steps on page 10.



1.2.2 Closing Operation Window

Click [File] → [Exit] on the menu bar or select on the toolbar.

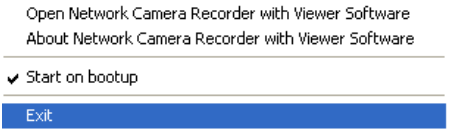
Note

Even when the operation window is closed, will not be removed from the notification area.

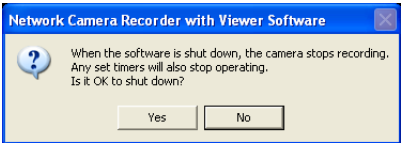
When is displayed in the notification area, the timer recording function is operating.

1.2.3 Closing This Software

1. Right-click in the notification area and select [Exit].



2. Click [Yes].



Note

- When you exit this software, will be removed from the notification area.
- When you exit this software, any timers that you have set stop operating.

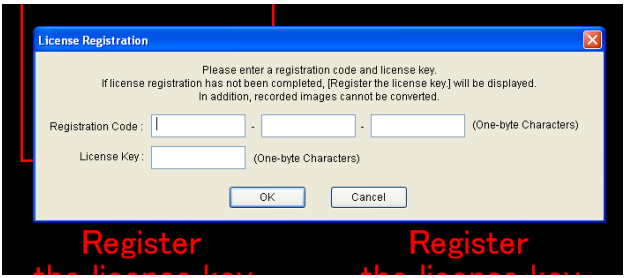
1.3 Performing License Registration

If no license has been registered when the operation window is started, [Register the license key] will be displayed. Follow the steps below.

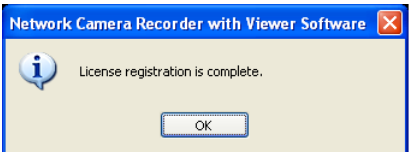
1.3.1 Registering a New License

1. Select [Help] → [License Registration] on the menu bar.

2. Enter the registration code and license key, and click [OK].



3. Click [OK].

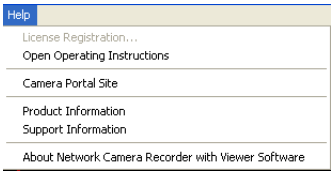


Note

The registration code and license key are shown on the attached registration code stickers. Characters are case sensitive, so enter them exactly as printed.

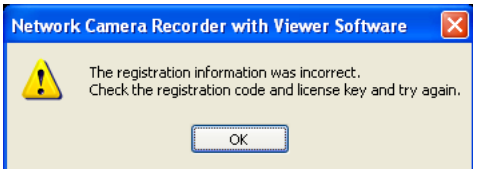
Note

If the registration is complete, [License Registration] on the menu bar is grayed out.



Note

- If the following window is displayed, the registration code or license key is incorrect. Confirm them, and enter them again.



- Keep the registration code and license key in a safe place where you will not lose them.
  Lost codes and keys cannot be reissued.

1.4 Setting Recording Environment

1.4.1 Setting a Folder to Save Recorded Images

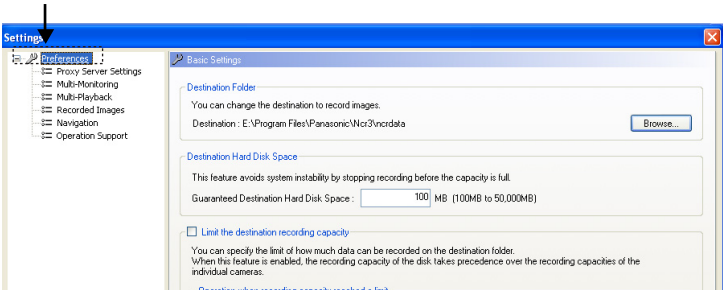
This software records camera images to the hard disk on your PC. The folder can be changed. After you have changed the destination folder, the recorded images will be saved in the folder that you specified.

- If the destination folder is not specified, the recorded images are saved into the [ncrdata] folder in the folder where this software is installed.
- You can change the destination folder to another folder or external hard disk drives.

1. Select [Window] → [Settings] on the menu bar.

2. Click [Preferences].

After you click [Preferences], the [Basic Settings] page is displayed.

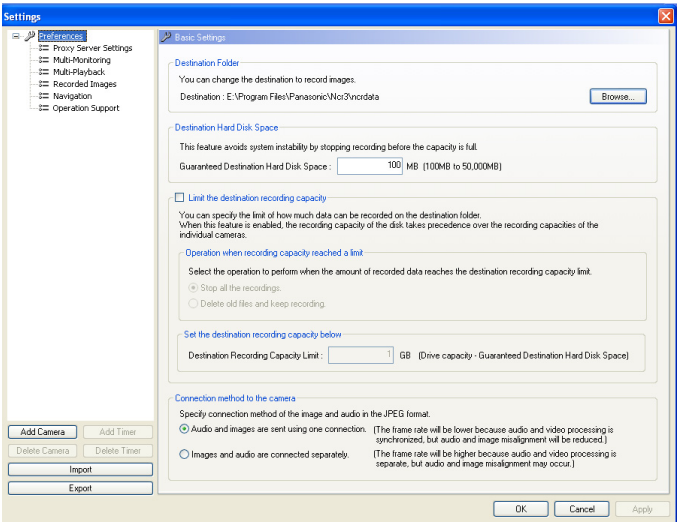


3. Configure the settings in the [Basic Settings] page and click [OK].

Note

When you change a setting, a mark is displayed on the icon for the item that you changed. The setting is applied when you click [OK] or [Apply].
See page 44 for details on the settings icons.

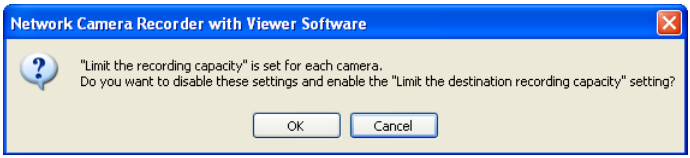
Basic Settings Page



Setting	Description
Destination Folder	Specify the destination folder to save recorded images (see page 14).
Destination Hard Disk Space	Set enough capacity as your destination disk to prevent the system from getting unstable. (100 MB (Default) to 50,000 MB).
Limit the destination recording capacity	To specify the limit of how much data can be recorded on the destination disk, select [Limit the destination recording capacity] and enter a value in [Destination Recording Capacity Limit]. Select [Stop all the recordings] or [Delete old files and keep recording] (by 1 minute) when the capacity is full.
Connection method to the camera	Set the connection method to use for audio and video when the camera's data format is set to JPEG (see page 24). If you monitor and record camera images with audio over the internet, the audio may be interrupted due to the network environment. If this is the case, select [Images and audio are connected separately]. There is a limit to the number of connections to the same camera using this software (including BB-HNP11). If you select [Audio and images are sent using one connection], do not make more than 4 connections to the same camera. If you are making more than 4 connections, select [Images and audio are connected separately].

Note

- If you select [Delete old files and keep recording] and change the destination recording capacity limit to a value smaller than the current capacity, the old images will be deleted.
  (Example: if you change the destination recording capacity limit to 2 GB when you recorded images up to 3 GB, 1 GB old images are deleted.)
- You can also limit the recording capacity of individual cameras (see page 26).
  [Limit the destination recording capacity] (preferences setting) and [Limit the recording capacity] (individual camera setting) cannot be used simultaneously.
  When [Limit the recording capacity] is set, the following window is displayed. The recording capacity limitation of individual cameras is disabled by clicking [OK].



- Audio interruption may be reduced by lowering the maximum bandwidth of the camera, reducing the image resolution, or lowering the image quality.

Change the destination folder

1. Click [Browse...] in [Destination Folder] in the [Basic Settings] page (see page 13).
2. Select the destination folder, and click [OK].
   - Create the folder in advance.

Note

- The drive containing the destination folder must have more than 100 MB of free space.
- Do not move, change or delete the files and folders in the destination folder. Doing so can cause the program to behave unexpectedly.
- The path of the destination folder must be under 128 characters in order to prevent the system from becoming unstable.

  e.g. D:/Camera Recorder_HNP15/HNP15_Images
  (under 128 characters)

- File sizes of recorded images listed below can be used as a baseline.

  [1 frame size (Image only)]

  Data format: JPEG

Resolution	Items	Favor Clarity	Standard	Favor Motion
1280 x 1024	File Size	About 100 KB	About 77 KB	About 60 KB
640 x 480	File Size	About 50 KB	About 35 KB	About 27 KB
320 x 240	File Size	About 25 KB	About 16 KB	About 10 KB
192 x 144	File Size	About 10 KB	About 7 KB	About 5 KB
160 x 120	File Size	About 7 KB	About 5 KB	About 3 KB

- Recording capacity can be calculated by Size (KB) x Frame Rate (images per second) x time (second).

  Example:
  640 x 480 resolution, Favor Clarity and 5 images per second for one hour:
  50 (KB) x 5 (images/s) x 3,600 (s) =900,000 KB (About 879 MB).
  If the audio is attached, add 4 KB per second.
  900,000 (KB) + 4 (KB) x 3,600 (s) = 914,400 KB (About 893 MB).

  [Image size per second (Image only)]

  Data format: MPEG-4

Resolution	Items	MPEG-4 Bit Rate*
640 x 480	File Size	768 Kbps
320 x 240	File Size	384 Kbps
192 x 144	File Size	128 Kbps

- Recording capacity can be calculated by MPEG-4 Bit Rate (Kbps) ÷ 8 Bit x time (second).

  Example:
  640 x 480 resolution, MPEG-4 Bit Rate 768 Kbps for one hour:
  768 (Kbps) ÷ 8 (Bit) x 3,600 (s) = 345,600 KB (337.5 MB)
  If the audio is attached, add 4 KB per second.
  345,600 (KB) + 4 (KB) x 3,600 (s) = 360,000 KB (About 352 MB)

* The MPEG-4 Bit Rate is dependent on the value of "MPEG-4 Bit Rate" in "Video Streaming" in the camera settings.

1.4.2 Setting a Proxy Server

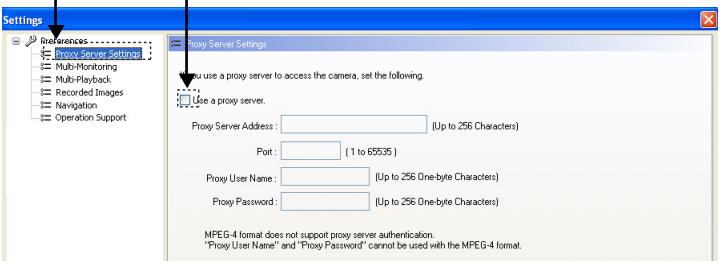
You need to set the following settings to monitor the camera on the Internet you using a proxy server. (You cannot connect to the camera without the proxy settings.)
If you do not use a proxy server, this setting is not required.

1. Select [Window] → [Settings] on the menu bar.

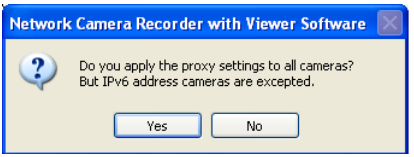
2. Click [Preferences] → [Proxy Server Settings].

3. Check [Use a proxy server] on the [Proxy Server Settings] page.

Click [Proxy Server Settings].
Check [Use a proxy server].



- If you have already registered the camera, the following confirmation window will display when you select the [Use a proxy server] checkbox.



4. Click [Yes].

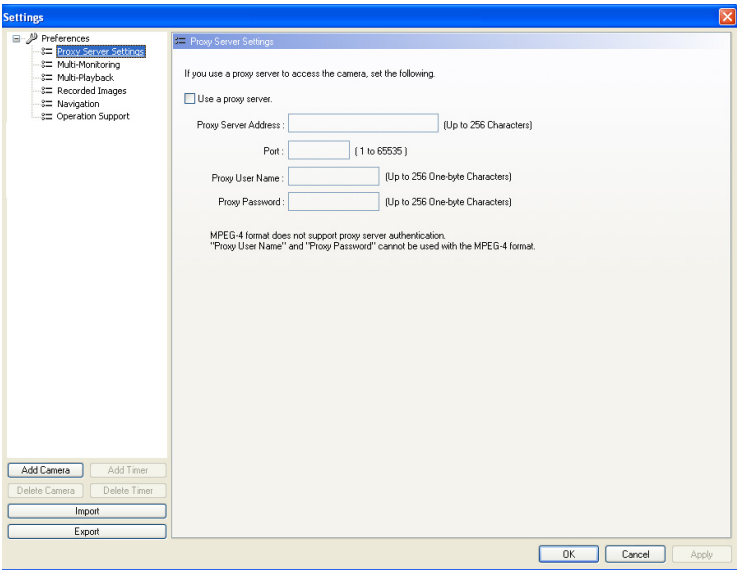
- If you click [Yes], the [Use a proxy server] setting in the [Camera Settings] page for all registered cameras is selected.

  (However, a check mark will not be displayed for cameras registered with an IPv6 address.)

  Click [No] if you want to configure proxy server settings for individual cameras (see page 22).

5. Set the parameters and click [OK].

Proxy Server Settings Page



Setting	Description
Proxy Server Address and Port	Enter the IP address of proxy server and port number. Enter them after asking your administrator. • Enter the alphanumeric characters. (Enter only the numeric character for port number.) • Proxy server does not support IPv6 connection. Set the IPv4 address or URL that you registered by IPv4 domain name service.
Proxy User Name and Proxy Password	Enter the user name and password for the proxy server, if required. Enter them after asking your administrator. • Enter the alphanumeric characters.

Note

Normally when the camera cannot access a proxy server, an error message is displayed (see page 20), but there are cases when an error message is not displayed with a proxy server error. In this case, the camera's image is displayed as a connection error (default is blue; see page 80).

2 Software Operation

2.1 Registering the Camera

Before you can view or record images, each camera must be configured on this software.

Note

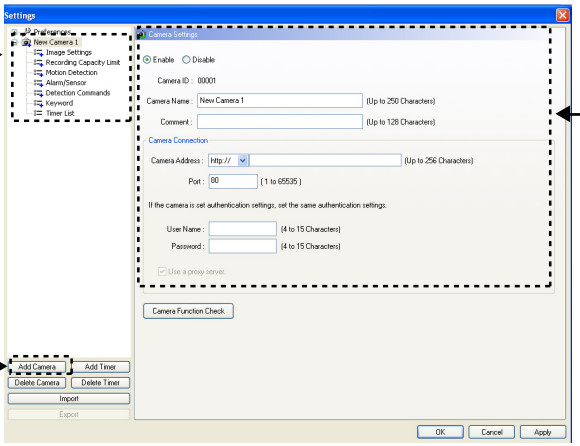
- When registering a camera, make sure that the camera is connected to a power outlet and to your network.
- The camera information can be imported and exported (see page 118).
- Monitoring stops while the settings page is displayed.

2.1.1 Creating New Camera

1. Select [Window] → [Settings] on the menu bar.

2. Click [Add Camera] on the [Settings] page.

When you click [Add Camera], a [New camera] item is added.



The configuration window of the item that is selected on the left is displayed.

[Add Camera] Button

3. Configure the settings in the [Camera Settings] page.

4. Click [Camera Function Check].

- When the check has finished, [Confirmed] is displayed.
- The software will connect to the camera and confirm the resolution and data format. If the camera does not support the set values, they will be changed automatically, and a mark will be displayed on the icon for the items that were changed (see page 44).
- If you cannot access the camera, the following windows are displayed. Confirm the camera's connection, IP address, port number, user name and password.

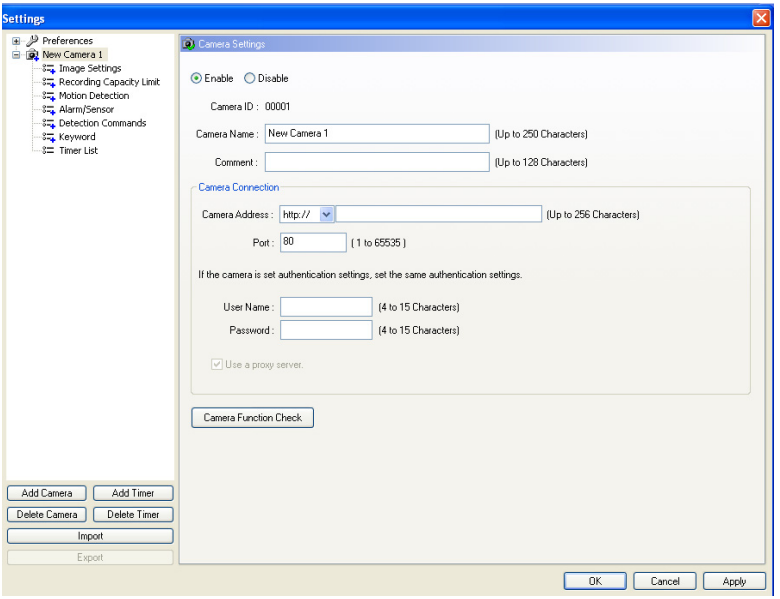
5. Click[OK]or[Apply].

- If you click [OK], settings page will close.
  If you want to register another camera, click [Apply].
- The new camera will be displayed in the multi-monitoring page.

Note

- See page 44 for details on the [OK], [Apply], and [Cancel] buttons.
- The default camera name is “New camera”, followed by a number.
  The number is generated automatically.
  Default values are used for the other settings.

Camera Settings Page



Setting	Description
Enable/Disable	You can enable or disable cameras. If you disable the camera, the monitoring window for that camera is not displayed and manual recording and timer recording cannot be operated. • If you disable a camera, the monitoring window for that camera is displayed as gray. You can change the background color of disabled cameras (see page 76). • If you disable the camera, manual recording and timer recording is stopped. • If you enable the camera, timer recording starts again. • You can play recorded images even from disabled cameras.
Camera Name	Enter the camera name. (Maximum 250 characters.) To display the camera name in the multi-monitoring page, select the [Display the camera name] check box in [Preferences] → [Multi-Monitoring] (see page 75).
Comment	Enter the information of the camera such as a location. (Maximum 128 characters.)

Setting	Description
Camera Address	Enter the IP address (or domain name) (Up to 256 alphanumeric characters). • Enter the alphanumeric characters. • An IPv6 address is divided in to 8 groups of hexadecimal digits divided by ":" (colon). Consecutive groups of "0" can all be shortened to "::". Surround an IPv6 address with square brackets [ ] to distinguish it from an IPv4 address. Example: [201:2:3:4::5] • If the camera supports SSL, enter https:// followed by the IP address to create an SSL connection. When connecting the camera through https, set HTTPS setting of the camera to [Use HTTPS].
Port	Enter the port number. (1 to 65535 numeric characters.) • You must enter the port number. The default is 80.
User Name/ Password	If the camera has security settings enabled (authentication setting), enter the administrator user name and password for the camera. • Enter the alphanumeric characters. • 4 to 15 characters. • If you set a general or unregistered user name and password, this software may not work properly. • Password is saved in encryption.
Use a proxy server	This option is enabled if you selected [Use a proxy server] in the proxy server settings. (See page 17). If the camera uses a proxy server, configure the proxy server settings and select [Use a proxy server]. Cameras that are registered using an IPv6 address cannot be used with a proxy server.

2.1.2 Setting Cameras

You configure the settings for registered cameras individually.

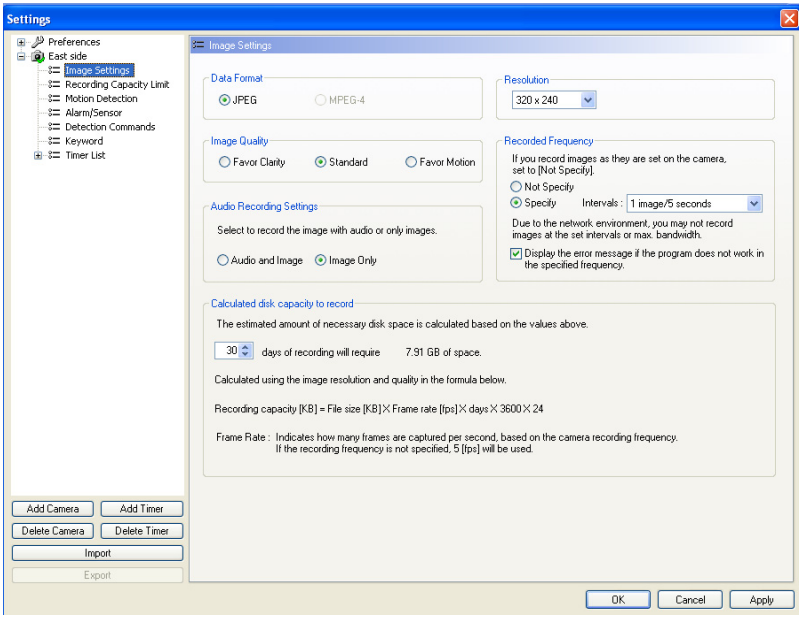
1. Select [Window] → [Settings] on the menu bar.

2. Configure the settings for the individual cameras and click [OK] or [Apply].
   - If you click [OK], settings page will close.
     If you want to configure other settings, click [Apply].

Setting the image data information

Configure the settings for image data information.

Image Settings Page



Setting	Description
Data Format	Select the data format for the camera. [JPEG (Default), MPEG-4]. (If the camera does not support the MPEG-4 format, this option will be disabled.)
Image Quality	Select the image quality for the camera when using the JPEG format. [Favor Clarity, Standard (Default), Favor Motion]. (If using the MPEG-4 format, this option will be disabled.)
Audio Recording Settings	Select to record the image with audio or only images.
Resolution	Select the resolution of the image. The resolutions that are available depend on the camera and data format. Default is 320 x 240.
Recorded Frequency	Set the interval at which to record images when using the JPEG format. [Not Specify, Specify (Record images at specified interval)] If you record images as they are set on the camera, set to [Not Specify]. If you select [Specify], [Display the error message if the program does not work in the specified frequency] will be enabled. Select this option if you want to display the error message (see page 25). (If using the MPEG-4 format, this option will be disabled.)
Calculated disk capacity to record	The estimated amount of necessary disk space is calculated based on the number of days of recorded that is specified. [1 to 60 days. Default is 30 days]

Note

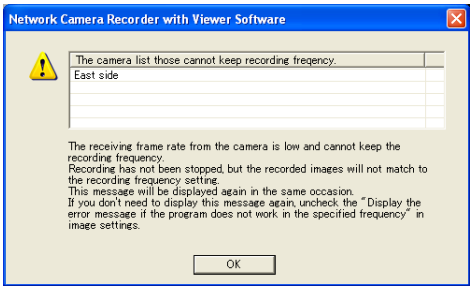
- If you select the MPEG-4 format, CPU usage will be higher. To reduce CPU usage, select [Specify the frame rate] from [Preferences] → [Multi-monitoring], and set the frame rate to a low value.
- If you selected the MPEG-4 format, the following confirmation window will be displayed.

- If you have set the recorded frequency or the alarm recording, the following window will be displayed when you click [OK].
  Disable the settings and select MPEG-4 again.

- If you have set motion detection recording as the timer recording method, the following window will be displayed.
  Disable the settings and select MPEG-4 again.

- If you select the JPEG format, there is a limit to the number of connections that can be made to the same camera with this software (including BB-HNP11).

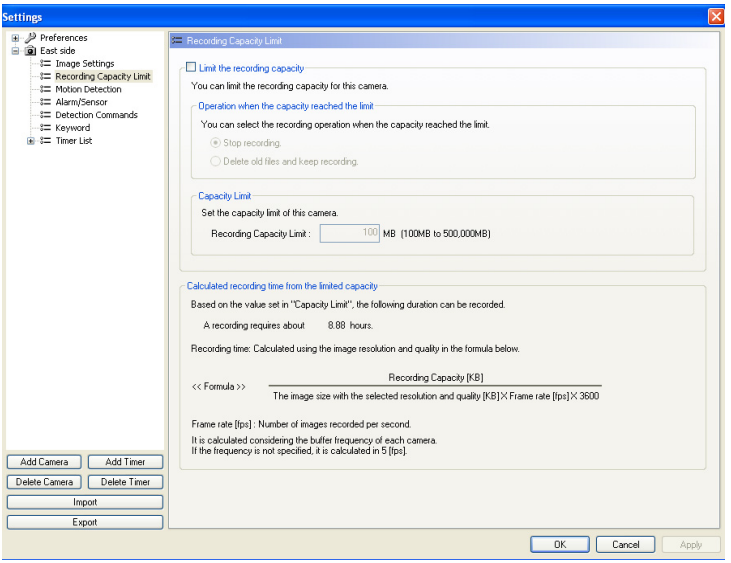
  If you select [Audio and images are sent using one connection] on the basic settings page (see page 13), do not make more than 4 connections to the same camera.
  If you are making more than 4 connections, select [Images and audio are connected separately].
- If you select the MPEG-4 format, image display will be smoother even if bandwidth is lower.
  If you select the JPEG format, frame rate will be reduced, but image quality will be higher.
- If the camera disables setting changes, resolution or image quality settings may not work properly.
- Due to the network environment, you may not record images at the set intervals or max. bandwidth.
- If you selected [Display the error message if the program does not work in the specified frequency], the following window will be displayed when the program does not work at the specified recording frequency.
  In this case, set the recorded frequency to a higher value.



Limiting the recording capacity

You can limit the recording capacity of individual cameras.

Recording Capacity Limit Page

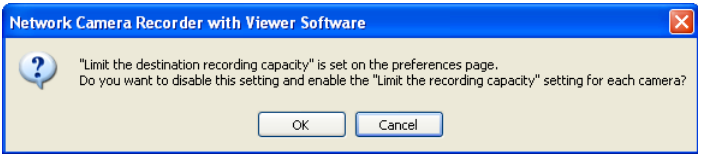


Setting	Description
Limit the recording capacity	To limit the recording capacity of individual cameras, select [Limit the recording capacity] and enter a value in [Recording Capacity Limit]. Select [Stop recording] or [Delete old files and keep recording] (by 1 minute) when the capacity is full.
Calculated recording time from the limited capacity	If the recording capacity is limited, the available recording time is calculated based on the values above.

Note

- If you select [Delete old files and keep recording] and change the capacity limit to a value smaller than the current capacity, the old images will be deleted. (Example: If you change the capacity to 200 MB when you recorded images up to 250 MB, 50 MB old images are deleted.)

- You can also limit the recording capacity in the basic settings page (see page 13).
  [Limit the destination recording capacity] and [Limit the recording capacity] (individual camera setting) cannot be used simultaneously.
  When [Limit the destination recording capacity] is set, the following window is displayed.
  [Limit the destination recording capacity] in the basic settings page is disabled by clicking [OK].



Setting the motion detection level

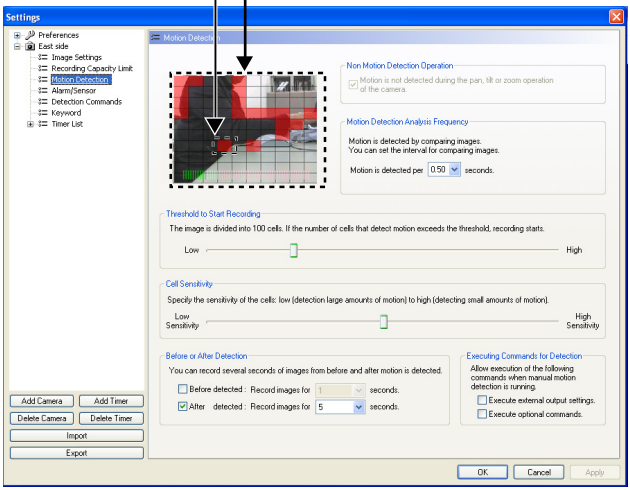
You can set the level at which to start motion detection recording.

Motion detection recording only operates when the JPEG format is selected. If the MPEG-4 format is selected, change the format to JPEG (see page 24).

Motion Detection Page

The cell where motion was detected is displayed in red.

Motion detection monitoring window
You can monitor the progress of motion detection.



Setting	Description
Non Motion Detection Operation	If you check the box, the motion is not detected during the pan, tilt or zoom operation of the camera. (If the camera does not support the MPEG-4 format, this is grayed out.)
Motion Detection Analysis Frequency	Set the interval for comparing images. By increasing the interval, you can better detect slow-moving objects, and by decreasing the interval, you can better detect fast-moving objects.
Threshold to Start Recording	The image is divided into 100 cells. If the number of cells that detect motion exceeds the threshold, recording starts. A lower threshold is more sensitive to small amounts of motion.
Cell Sensitivity	Set the sensitivity in a cell.

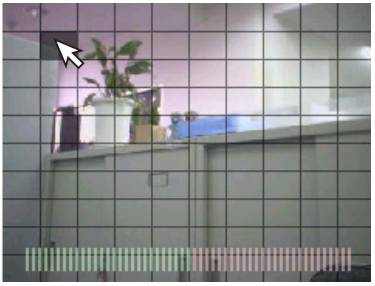
Setting	Description
Before or After Detection	Specify the number of seconds to record before and after the motion is detected.
Executing Commands for Detection	You can specify commands that execute for motion detection. You can configure commands in [Detection Commands] page (see page 33).

Note

- Check motion detection by using the motion detection monitoring window, and adjust the settings accordingly.
- You can center the camera image on the desired point by right-clicking in the motion detection monitoring window (see page 51).

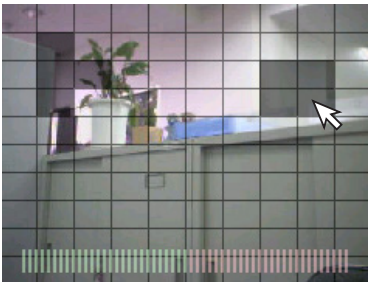
[Disabling a monitoring area]

You can specify an area of the image in which to disable motion detection.
To specify a disabled area, click the cells that you want to disable in the motion detection monitoring window. Disabled areas are darkened. You can set multiple disabled areas.



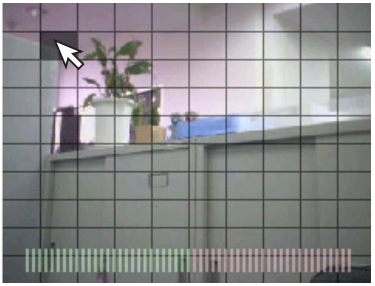
Click the cells that you want to disable in the motion detection monitoring window.

- Disabled areas are darkened.

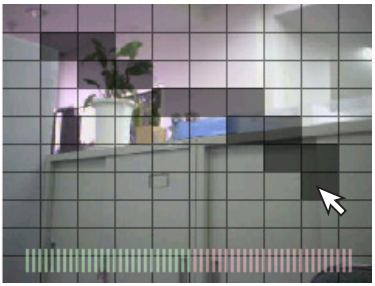


You set multiple disabled areas.

- Click the cells that you want to disable.



By dragging the mouse (moving the mouse while holding down the left button), you can quickly select multiple cells.



After releasing the mouse, the disabled area is set.

[Re-enabling a disabled area]

You can re-enable a disabled area by clicking the cells in the disabled area.

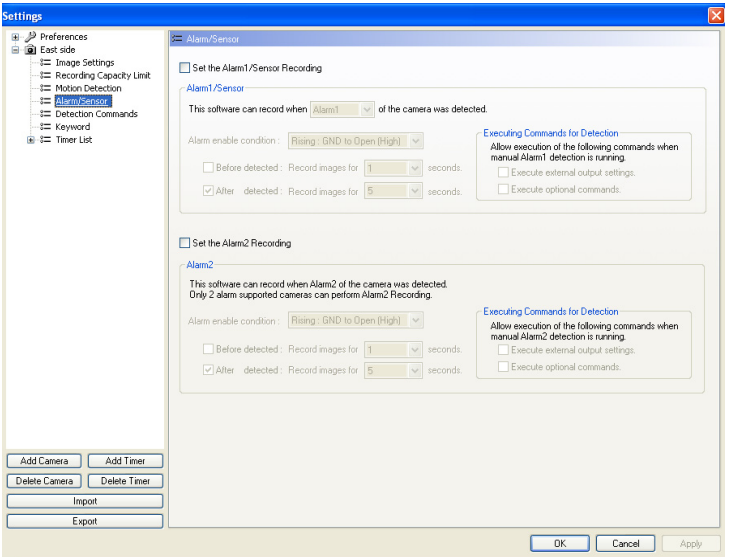
Note

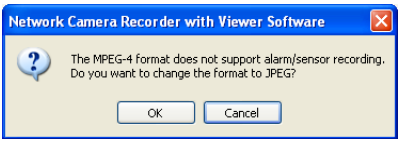
If you set the date and time to be displayed on the camera images, disable the area where the date and time are displayed in order to not detect that motion.

Setting the alarm/sensor detection method

You can set an alarm/sensor detection method for cameras that have an alarm/sensor attached.
Alarm/sensor recording can only be enabled for cameras set to the JPEG format (see page 24).
If the camera is set to MPEG-4 format, change the setting to JPEG format, then configure the alarm/sensor.

Alarm/Sensor Page



Setting	Description
Set the Alarm1/ Sensor Recording / Set the Alarm2 Recording	After you select the check box, recording will start when the camera detects a signal. • If the camera is set to the MPEG-4 format (see page 24), the following message will be displayed. Click [OK] to change to the JPEG format.  • Select [Sensor] for sensor supported cameras.

Setting	Description
Alarm enable condition	Specify Alarm enable condition ([Rising : GND to Open (High)] or [Falling : Open (High) to GND]). • Specify the alarm enable condition after checking the alarm specification. • [Rising : GND to Open (High)] is selected automatically when [Sensor] is selected.
Before Detected/ After Detected	Specify the time before an alarm/sensor is detected or after an alarm/sensor is detected.
Executing Commands for Detection	You can specify commands that execute for alarm detection. You can configure commands in [Detection Commands] page (see page 33).

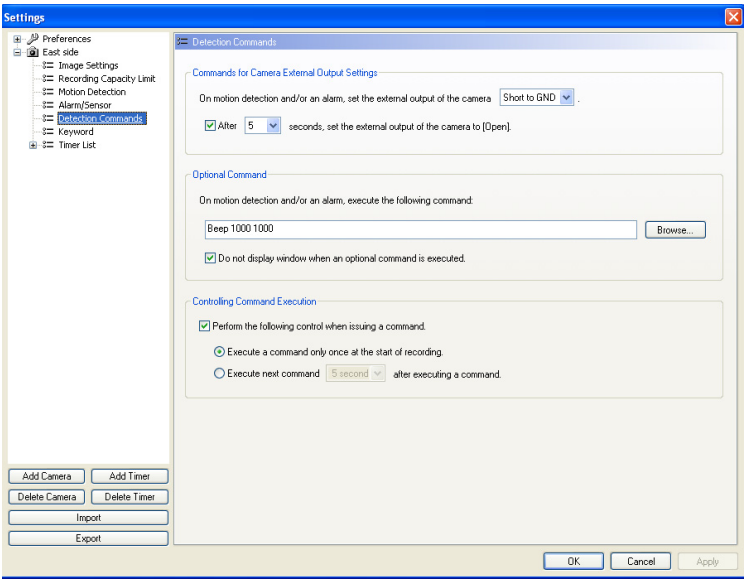
Note

Configure alarm/sensor detection after an alarm/sensor has been attached to the camera.
Setting alarm/sensor detection without an alarm/sensor causes a malfunction.

Configure commands to execute for detection

You can specify executing commands for motion detection and/or alarm detection. Specify the commands in their respective pages when you execute the commands specified (see page 29, 32, 61).

Detection Commands Page



Setting	Description
Commands for Camera External Output Settings	Set a command (Short to GND or Open) to execute at the external equipment that is connected to the camera for motion detection and/or alarm detection and an unlock time for the specified command (see page 34).
Optional Command	Select optional commands to execute when motion or an alarm is detected. Default is Beep 1000 1000*.
Controlling Command Execution	You can select Execute a command only once at the start of recording, or you can specify a number of seconds during which commands will not being executed after a command has finished executing (see page 35).

* The Beep program is installed with this software.
"Beep 1000 1000" is a command that makes a beeping sound at 1000 Hz for 1000 ms. You can set user created commands as well.
However, depending on the command's operation, recording performance may be affected. Use optional commands after thorough testing. Recorded image quality cannot be guaranteed when using optional commands.

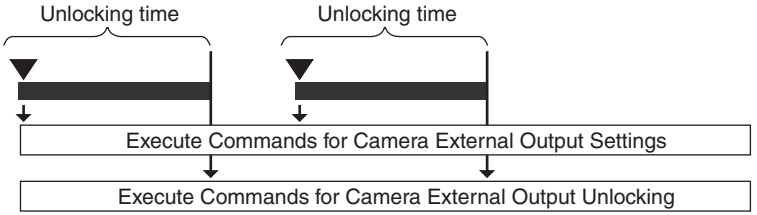
[About Commands for Camera External Output Settings]

■ When you set external output unlocking
(After 5 seconds from motion detection, alarm detection, or unlocking time)

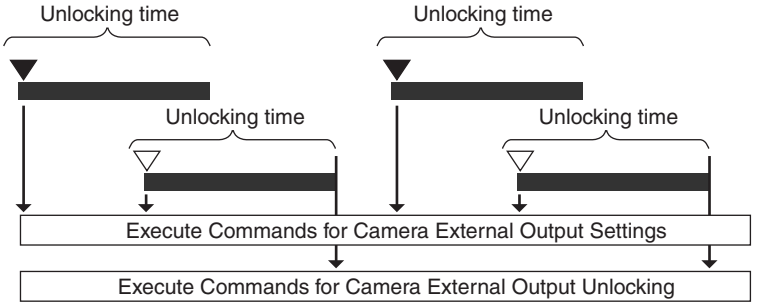
▼ : Motion detection ▽: Alarm detection

▬ : Recording images

- Unlock the external output at the set time.



- If detection occurs during the unlocking time, unclocking is extended for the time from the detection to the set unlock time.



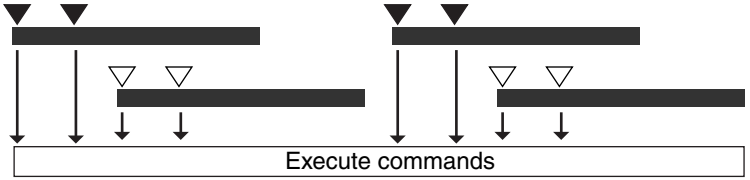
[About Command Execution]

■ If you do not select "Perform the following control when issuing a command" in "Controlling Command Execution".
(After 5 seconds from motion detection, alarm detection)

▼ : Motion detection ▽: Alarm detection

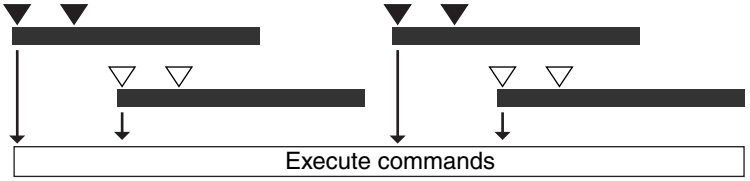
▬ : Recording images

- Execute commands for each detection.



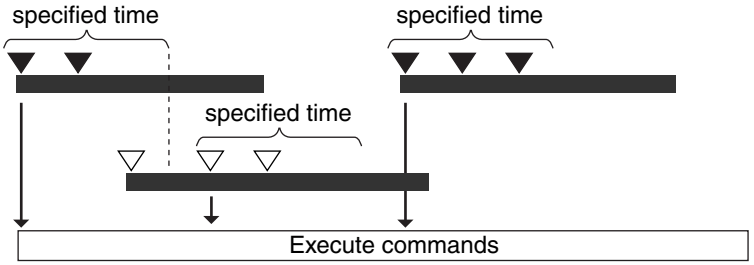
■ When you select "Perform the following control when issuing a command" →"Execute a command only once at the start of recording"
(After 5 seconds from motion detection, alarm detection)

- Execute commands only at the start of decetion recording.



■ When you select "Perform the following control when issuing a command" →Set an interval during which to not execute commands after executing a command. (After 5 seconds from motion detection, alarm detection)

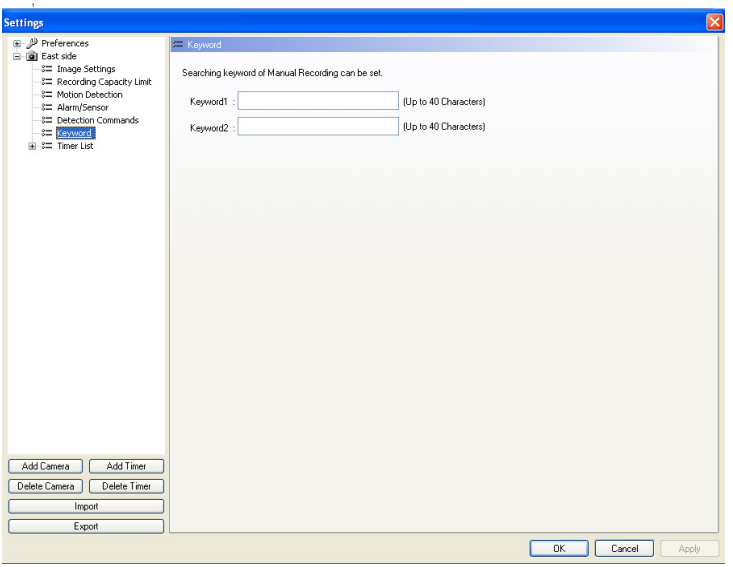
- Command will not be executed if motion is detected during the specified time after detection.



Adding a keyword to recorded images

You can assign keywords to manually recorded images.
You can use keywords to search recorded images.

Keyword Page



Setting	Description
Keyword1/ Keyword2	Put a keyword to recorded images. Maximum 40 characters. 2 keywords (Keyword1/Keyword2) can be set.

2.2 Network Camera Recorder Window

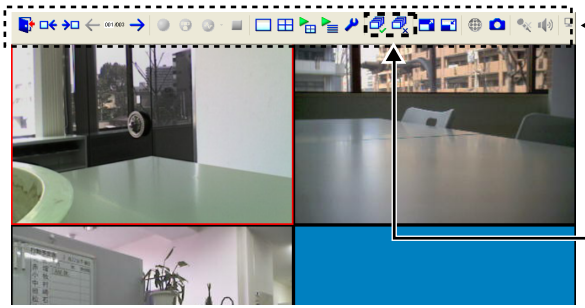
2.2.1 About the Application Windows

Full screen mode and Window mode

You can change the window display between full screen mode (expanding the window over the entire desktop) or window mode (always displaying the title bar, menu bar and toolbar).

1. Select [Display Mode] → [Full Screen Mode] or [Window Mode] on the menu bar.

Full screen mode

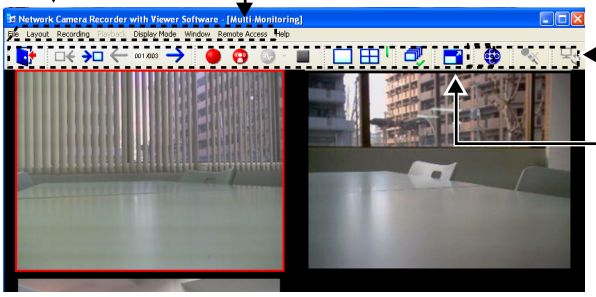


Sliding window
(See page 48)
The toolbar is displayed when the mouse is moved upward.

Changes the display to Window mode.

Window mode

Title bar
Displays the name of the software and the currently displayed window.



Menu bar
(See page 46)

Tool bar
(See page 48)

Changes the display to Full screen mode.

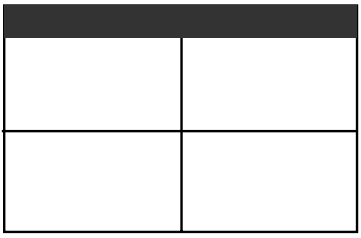
Multi-Monitoring Page

The images from registered cameras are displayed in the multi-monitoring page (see page 49).

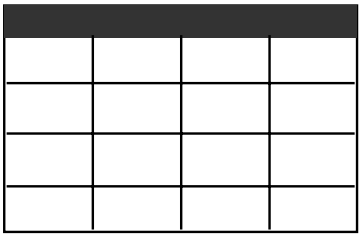
1. Select [Window] → [Multi-Monitoring] on the menu bar.

- You can change the number of camera screens to display (see page 76). Default is four-screen layout (2 rows x 2 columns).

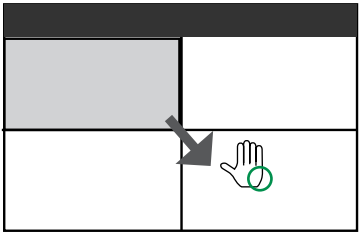
Four-screen layout

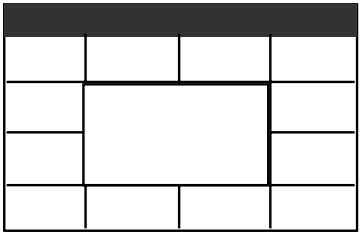


Sixteen-screen layout



- You can rearrange the order of camera screens (see page 82) and enlarge a camera display area (see page 78).





Note

If you double-click a camera's image on the multi-monitoring page, the display will switch to the single-monitoring page. When you double-click on the single-monitoring page, the display will return to the multi-monitoring page.

Single-Monitoring Page

In the single-monitoring page, a single image from the focus camera is displayed.

1. Select [Window] → [Single-Monitoring] on the menu bar.

- A single image from the focus camera is displayed.

Note

- If you double-click a camera's image on the multi-monitoring page, the display will switch to the single-monitoring page. When you double-click on the single-monitoring page, the display will return to the multi-monitoring page.
- If the click to center function is active, the display area of a camera image may move when you double-click the image. You can disable the click to center function (see page 76).
- The single-monitoring page does not support switching pages. If the single-monitoring page is displayed while switching is running on the multi-monitoring page, switching is stopped. Switching will restart after returning to the multi-monitoring page.

Recorded Images Page

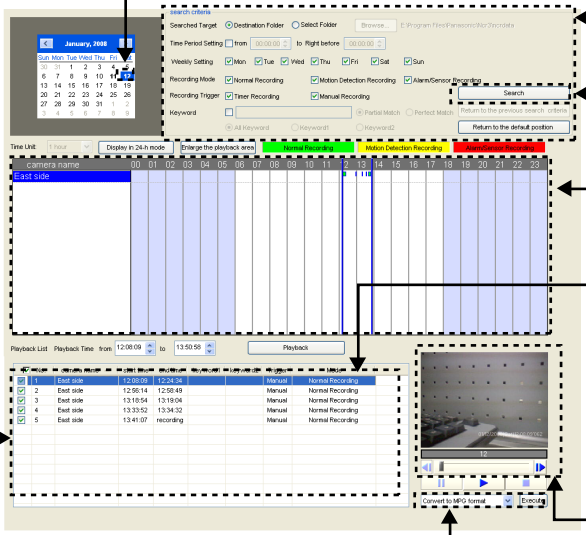
The timelines are displayed in the chart on the recorded images page (see page 65). The camera name, recording time and recording mode can be checked on this page. Image searching, playback and data conversion can be also operated on this page.

1. Select [Window] → [Recorded Images] on the menu bar.

2. Click [Search].

- The window displays a list for the most recent day with recorded images.

The day on which the most recent images were recorded is selected and displayed in the list.



Note

- When you click the search button, days that have recorded images are displayed in boldface on the calendar. Clicking one of these days displays the list of images for that day (see page 65).
- If you press [Ctrl]-[Tab] key, the windows will cycle through [Single-Monitoring] - [Multi-Monitoring] - [Multi-Playback] - [Recorded Images] in that order.
- You can change the items that are displayed in the playback list (see page 88).

Multi-Playback Page

The recorded images that are selected in the recorded images page are simultaneously playback on the multi-playback page.
To display images in the multi-playback page, set the playback time and select the recorded images in the recorded images page (see page 69).
You can change the screen layout to display, 1 screen or 4 screens (see page 85).
In the 4-screen layout, you can simultaneously playback the recorded images of 4 cameras. You can select the display format: [Display timelines as chart] or [Standard] (see page 85).

1. Select the desired recorded image in the [Playback list] in [Recorded Images] page, then click [Palyback] (see page 40).

Display timelines as chart

If a selected camera has no recorded images at the set time, no image is displayed for that camera.

Standard

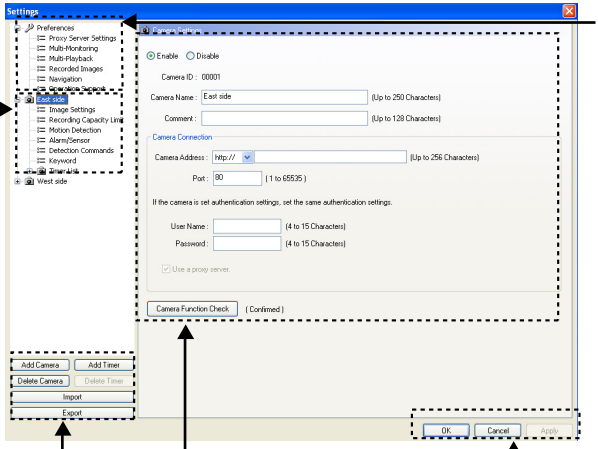
Note

If you press [Ctrl]-[Tab] key, the windows will cycle through [Single-Monitoring] - [Multi-Monitoring] - [Multi-Playback] - [Recorded Images] in that order.

Settings Page

From the settings page, you can configure the environment settings, register and delete cameras, configure camera settings, and add and delete timers.

1. Select [Window] → [Settings] on the menu bar.



Configure the environment settings for this software.

- Preferences (See page 12)
- Proxy Server Settings (See page 17)
- Multi-Monitoring (See page 75)
- Multi-Playback (See page 84)
- Recorded Images (See page 87)
- Navigation (See page 125)
- Operation Support (See page 127)

The configuration window of the item that is selected on the left is displayed.

(See page 44)

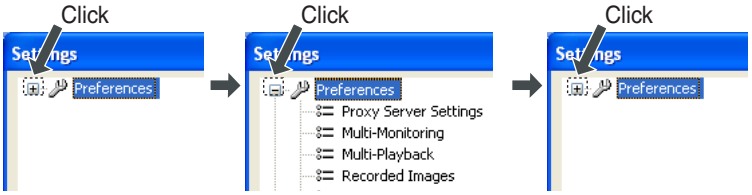
Add Camera (See page 19)/Delete Camera (See page 121)
Add Timer (See page 59)/Delete Timer (See page 123)
Importing/Exporting the Camera Information (See page 118)

Configure settings for individual cameras (see page 19).

[Settings List Display]

The settings list is displayed in tree form.

Expand an item by clicking ⊞, and collapse an item by clicking ⊟.



[OK Button, Cancel Button, Apply Button]

Apply changes to the settings and close the window.

Close the window without applying changes.

Apply changes but leave the window open.
Use [Apply] to save your changes while configuring several different settings.
If you have not made any changes, this button will be unavailable.

[Setting Change Icon Display]

When you change a setting, a mark is displayed on the icon for the item that you changed.
The mark is deleted after the setting is applied by clicking [OK] or [Apply].
If the settings window is closed (e.g., by clicking [Cancel]) while the mark is displayed, the setting change will not be applied.

Setting value changed: A green checkmark is displayed

Setting value added: A blue plus-sign is displayed.

Setting value deleted: A red X-mark is displayed.

The mark is removed after the setting is applied by clicking [OK] or [Apply].

Camera Operation Bar

You can display the camera operation bar and operate the camera (see page 52).

1. Click the camera screen that you want to operate.
2. Select [Window] → [Camera Operation] on the menu bar.
   - The camera operation bar of the selected camera is displayed.

You can move the location of the operation bar by dragging (moving the mouse while holding down the left button) on the title.

Note

The display of the operation bar will differ depending on the camera type.

Menu Bar

- **File**
  - Exit — Close Operation Window
- **Layout**
  - Next Page — Display the next multi-monitoring page. (Enable if there is a next page, and disable if there is not a next page.)
  - Next Camera — Move control to the next camera. (Enable if there is a next camera, disable if there is not a next camera.)
  - Previous Camera — Move control to the previous camera. (Enable if there is a previous camera and disable if there is not a previous camera.)
  - Previous Page — Display the previous multi-monitoring page. (Enable if there is a previous page, and disable if there is not a previous page.)
  - Select All — Select all displayed cameras. (When you change pages, the selected will be cleared.)
  - Clear All — Clear the selection from all cameras.
- **Recording**
  - Start Recording — Start manual recording.
  - Start Motion Detection Recording — Start manual motion detection recording.
  - Alarm/Sensor Recording
    - Start All — Start manual alarm/sensor recording of all.
    - Start Alarm 1/Sensor — Start manual alarm1/sensor recording.
    - Start Alarm 2 — Start manual alarm2 recording.
  - Stop Recording — Stop all manual recordings.
  - All Camera
    - Enable — Enable all registered cameras.
    - Disable — Disable all registered cameras.
  - Selected Camera
    - Enable — Enable the selected cameras.
    - Disable — Disable the selected cameras.
- **Playback**
  - Start Playback — Start playback.
  - Reverse Playback — Reverse playback.
  - Pause — Pause playback.
  - Stop — Stop playback.

- To Next Image — Display the next image. (previous image in reverse playback)
- To Previous Image — Display the previous image. (next image in reverse playback)

Display Mode

- Full Screen Mode — Change the display to full screen mode.
- Window Mode — Change the display to window mode.

Window

- Single-Monitoring — Display the single-monitoring page.
- Multi-Monitoring — Display the multi-monitoring page.
- Multi-Playback — Display the multi-playback page.
- Recorded Images — Display the recorded images page.
- Camera Operation — Display/Hide the camera operation bar.
- Settings — Display the set environment page.

Remote Access

- New Connect — Connect to a remote server.
- Settings — Display the remote access settings page.
- Client Control — Display the control page for clients that use the remote access function.

Help

- License Registration — Open license registration page.
- Open Operating Instructions — Open operating instructions pdf file.
- Camera Portal Site — Open camera top page.
- Product Information — Open the network camera information website.
- Support Information — Open support information website for this software.
- About Network Camera Recorder with Viewer Software — Open version information page of this software.

Note

When a camera's address is an IPv6 address (see page 22), the camera's top page cannot be opened from the Camera Portal Site on the menu bar.
To open the camera's top page, enter the URL registered with the IPv6 Domain Name Service for the camera address.

Icon of Toolbar and Slide Window

Close the operation window.

Move the focus to the previous camera. (Enable if there is a previous camera and disable if there is not a previous camera).

Move the focus to the next camera. (Enable if there is a next camera and disable if there is not a next camera).

Displays the number of the current page, and the total number of pages. Move to a specific page by entering the page number.

Display the previous page. (Enable if there is a previous page, disable if there is not a previous page.)

Display the next page. (Enable if there is a next page, disable if there is not a next page.)

Start manual recording of the selected camera.

Start manual motion detection recording of the selected camera.

Start manual alarm recording (alarm recording of all, alarm 1 /sensor, alarm 2) of the selected camera.

Stop manual recording of the selected camera.

Display the single-monitoring page.

Display the multi-monitoring page.

Display the multi-playback page.

Display the recorded images page.

Display the settings page.

Select all displayed cameras. (When you change pages, the selected will be cleared.)

Clear the selection from all cameras.

Change the display to full screen mode.

Change the display to window mode.

Display/Hide the camera operation bar.

Take snapshots from the focus camera.

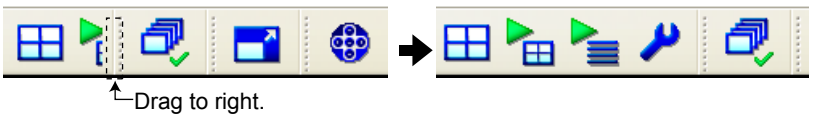
Transmit audio to cameras that support audio features (see page 117).

Set the volume of the selected camera (see page 83).

Operate remote access (see page 105). Reconnect to the server (see page 110).

Note

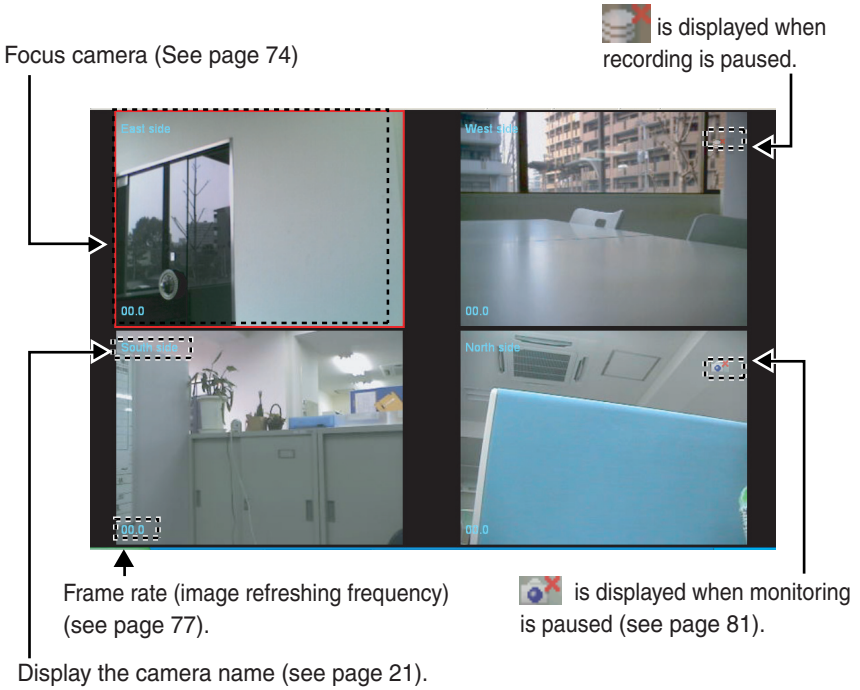
If you drag the toolbar right or left, icons displayed on the toolbar will be changed.



2.3 Monitoring the Camera

2.3.1 Multi-Monitoring Page

After registering a camera, the camera's images are displayed on the multi-monitoring page.



Note

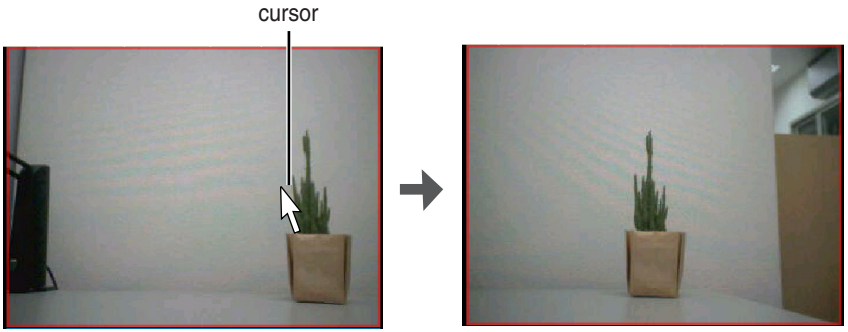
- The camera that is selected on the multi-monitoring page is the focus camera.
- The camera images are displayed in 4-screen layout (2 rows x 2 columns) in the order that they are registered (see page 76).
- If the number of registered cameras exceeds the limit of screens in a window, extra pages are automatically created to accommodate the number of cameras.
- To display the camera name and the frame rate, check [Display the frame rate] and [Display the camera name] from [Preferences] → [Multi-Monitoring] (see page 77).
- Sometimes audio may be interrupted, or image may be paused.

- Audio is played back for the focus camera and the selected camera.

  You can adjust volume with on the toolbar (see page 83).
- When you monitor a camera that supports audio, audio may be interrupted due to your PC performance or network environment. In this case, lower the maximum bandwidth setting on the network page of the camera.
- If you select [Maintain the aspect ratio] for the image display format in [Preferences] - [Multi-Monitoring], cameras with their resolution set to 1280x1024 will be displayed differently than at other resolutions.
- Depending on your computer and network environment, the display of the camera's image may be delayed when compared to the display in the monitoring page of the BB-HNP11 software or a browser's monitoring window.

Click to center

You can center the camera image on a desired point by clicking in the focus camera.



Click the desired point in the focus camera.

The camera centers on the point that you clicked.

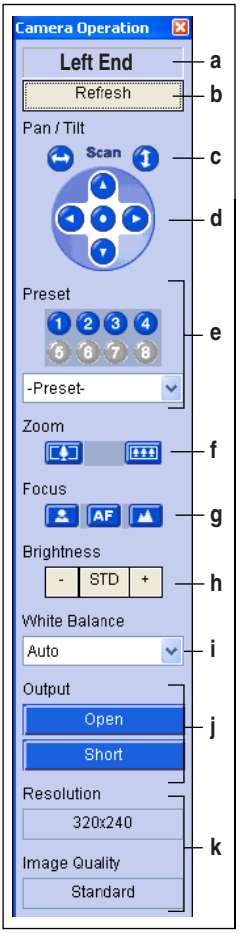
Note

- The camera may not be able to center on the clicked point.
- The click to center functions can be stopped when not in use (see page 76).

2.3.2 Using the Camera Operation Bar

You can use the camera operation bar that is displayed on the multi-monitoring page to operate the camera.

1. Select [Window] → [Camera Operation] on the menu bar.



a. Preset Display When the lens has reached the end of its pan, tilt range, the appropriate message will be displayed here ([Up End], [Down End], [Right End], [Left End]). Additionally, when a preset is selected, the name of the preset is displayed here. If a camera has limited controls, "Locked" is displayed.

b. Refresh The latest registered buttons are displayed (see page 54).

c. Pan/Tilt Scan *1 Moves the lens throughout the horizontal ( ) or vertical ( ) range, and returns to the original position.

d. Pan/Tilt/Home Position *1 Controls lens direction. Pan (: Left, : Right), Tilt (: Up, : Down) and Home Position (: Center)

e. Preset Button[*1] (See page 54).

f. Zoom[*1] (See page 53).

g. Focus[*1] (See page 53).

h. Brightness[*2] Allow you to change the brightness of the displayed image. Click [-] to darken the image, [+] to brighten the image, and [STD] to return the image to the standard brightness level.

i. White Balance *2 Allows you to select the white balance of the camera ([Auto (Default)], [Indoor], [Fluorescent (White)], [Fluorescent (Daylight)], [Outdoor], [Hold]).

j. Output Allows you to remotely control external devices that are connected to the camera. Set according to the external device that is connected.

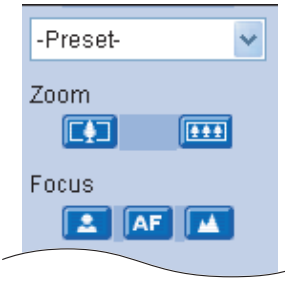
k. Resolution/ Image Quality Displays resolution/image quality. Change these settings on the camera's settings page (see page 24).

- If a feature is not permitted, the buttons will be disabled.
- The operation bar differs depending on the camera type.

*1 If the camera disables their controls, you cannot control their features.

*2 If the camera disables their controls, they may be unable to function.

Zooming in and out (Cameras available for the zooming in and out function)



Clicking tele button zooms in (maximum 42x*1), clicking wide button zooms out. The camera zooms in or out at a regular rate.

Focusing (Cameras available for the focusing function)

The camera has automatic or manual focusing features.

- **Automatic Focus**

  Click AF button.
  It is recommended to use automatic focus.
  You can return to automatic focus from manual focus clicking AF button.

- **Manual Focus**

  Clicking or sets the camera to manual focus.
  button moves the pint closer to the camera.
  button moves the pint further from the camera.

*1 Optical zoom is 21x and digital zoom is 2x.

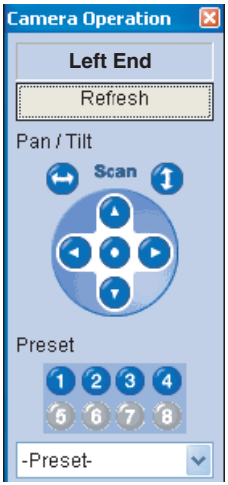
Using Preset Buttons/Preset List

The camera preset buttons/preset list can be used.

Clicking home position/preset buttons (1-8) or selecting the list changes position to registered position.

- Registered buttons are displayed blue.
- Unregistered buttons are displayed gray.

1. Click the preset number or select the preset list.
- When clicking a preset button, the preset name appears.



Note

- If the preset button is changed while this software is being used, the change is not reflected on this software.
  Clicking [Refresh] displays the latest preset buttons.
- The preset list may not be displayed depending on the camera.

2.4 Recording the Image

2.4.1 Recording Method

You can record by using the following 4 methods.

Manual Recording (See page 56)

Select a camera, and start recording with .

Motion Detection Recording (See page 57)

Select a camera and set motion detection recording with .
When the “Threshold to Start Recording” value is exceeded, motion detection recording starts.

Alarm/Sensor Recording (See page 58)

Select a camera and set alarm/sensor recording with .

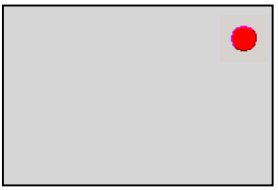
When the alarm or sensor signal is detected, alarm or sensor recording starts.

Timer Recording (See page 59)

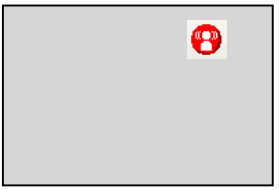
Set the timer for individual cameras.
Recording starts at the specified time for each camera.

During recording, the following icons are displayed on the multi-monitoring page.

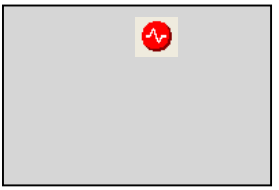
During recording.



While waiting for motion detection recording to start.

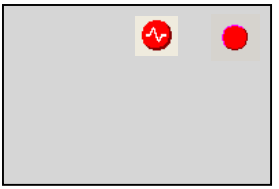


While waiting for alarm/sensor recording to start.



During motion detection recording.

During alarm/sensor recording.



2.4.2 Manually Recording the Image

This software allows you to manually record images.
Recording is operated with the settings that are configured on the image settings page (see page 23).

1. Select the camera to record from the multi-monitoring page.
   - A red frame is displayed around the selected camera.
   - To select multiple cameras, click the camera images while holding down the [Ctrl] key. A blue frame is displayed around the selected cameras. (A red frame is displayed around the focus camera.)
     See page 74 instructions on selecting cameras.

2. Click .
   - The focus camera and other selected cameras start recording.
   - is displayed in the upper-right portion of the screen for cameras that are record (see page 55).
   - To stop recording, select a camera to stop and click .
   - You can select [Start Recording] or [Stop Recording] from the [Recording] on the menu bar.

Note

- See page 15 for the estimated file sizes of recorded images.
- When you want to stop recording, always click , or select [Recording]-[Stop Recording]. If you close the operation window, recording will not stop.

  When is displayed in the notification area, the recording software is running (see page 9).
- If the network is disconnected during recording, recording will be paused, but the recording icon will still be displayed. Recording starts again when the network is reconnected.

2.4.3 Motion Detection Recording

Motion detection recording starts when the [Threshold to Start Recording] value is exceeded.
Set the [Threshold to Start Recording] value for individual cameras (see page 28).
Motion detection recording only operates when the JPEG format is selected.
If the MPEG-4 format is selected, change the format to JPEG (see page 24).

1. Select the camera to record motion detection from the multi-monitoring page.

- A red frame is displayed around the selected camera.
- To select multiple cameras, click the camera images while holding down the [Ctrl] key. A blue frame is displayed around the selected cameras. (A red frame is displayed around the focus camera.) See page 74 instructions on selecting cameras.

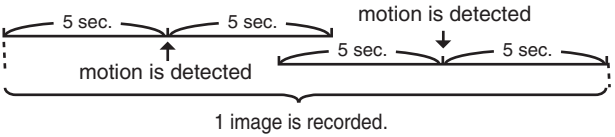
2. Click .

- The focus camera and other selected cameras are set for motion detection recording.
- is displayed in the upper-right portion of the screen for cameras that have motion detection recording set (see page 55).
- To stop recording, select a camera to stop and click .
- You can select [Start Motion Detection Recording] or [Stop Recording] from the [Recording] on the menu bar.

Note

- When you want to stop recording, always click , or select [Recording]-[Stop Recording]. If you close the operation window, recording will not stop.

  When is displayed in the notification area, the recording software is running (see page 9).
- You can set the camera to record a certain number of seconds before and after motion is detected. The motion detection level you have set may not be sufficient for motion detection recording depending on the resolution, image quality, the recording subject, and network environment. To ensure proper operation, test the motion detection recording in the motion detection monitoring window and adjust the motion detection level as necessary (see page 28).
- On motion detection, the camera can execute the selected commands (see page 33).
- Even if you have set a time period before and after detection, and motion is detected when you click or , no data will be recorded before you click , nor after you click .
- If after-motion detection recording and before-motion detection recording overlap, a continuous image is recorded.
  Example: you have set images to be recorded 5 seconds before and after motion detection.



2.4.4 Alarm Recording

When the signal of an alarm that is attached to the camera is detected, alarm recording starts.
Set the alarm detection method for individual cameras (see page 31).
Alarm recording only operates when the JPEG format is selected. If the MPEG-4 format is selected, change the format to JPEG (see page 24).

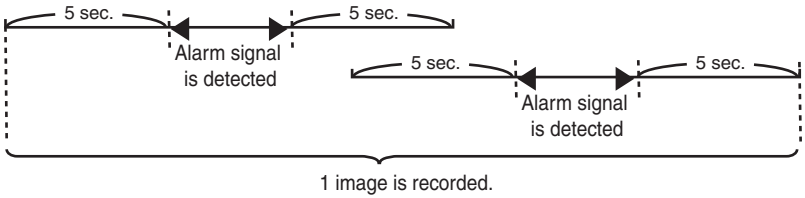
1. Select the camera to record from the multi-monitoring page.
- A red frame is displayed around the selected camera.
- To select multiple cameras, click the camera images while holding down the [Ctrl] key. A blue frame is displayed around the selected cameras. (A red frame is displayed around the focus camera.) See page 74 instructions on selecting cameras.

2. Select an alarm type from the menu that is displayed by clicking .
- The focus camera and other selected cameras are set for alarm recording.
- is displayed in the upper-right portion of the screen for cameras that have alarm recording set (see page 55).
- To stop recording, select a camera to stop and click .
- You can select [Alarm/Sensor Recording] → [Start All]/[Start Alarm1/ Sensor]/[Start Alarm2] or [Stop Recording] from the [Recording] on the menu bar.

Note

- When you want to stop recording, always click , or select [Recording]-[Stop Recording]. If you close the operation window, recording will not stop.

  When is displayed in the notification area, the recording software is running (see page 9).
- You can set the camera to record a certain number of seconds before and after an alarm signal is detected. The detection method that you have set may not be sufficient for alarm detection recording depending on the resolution, image quality, the recording subject, and network environment. To ensure proper operation, test the alarm recording.
- On alarm detection, the camera can execute the selected commands (see page 33).
- If after-alarm detection recording and before-alarm detection recording overlap, a continuous image is recorded.
  Example: you have set images to be recorded 5 seconds before and after alarm detection.



2.4.5 Timer Recording

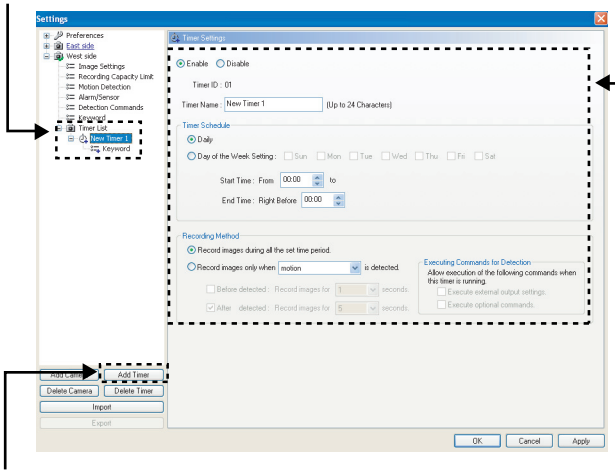
You can specify the day of the week and period of time for recording.
10 timers can be set for each camera.

Setting Timer

1. Select [Window] → [Settings] on the menu bar.

2. Select the camera for which to set a timer and click [Add Timer].
   - [New Timer] is added to the timer list of selected camera.

When you click [Add Timer], a [New Timer] item is added.



The configuration window of the item that is selected timer on the left is displayed.

[Add Timer] Button

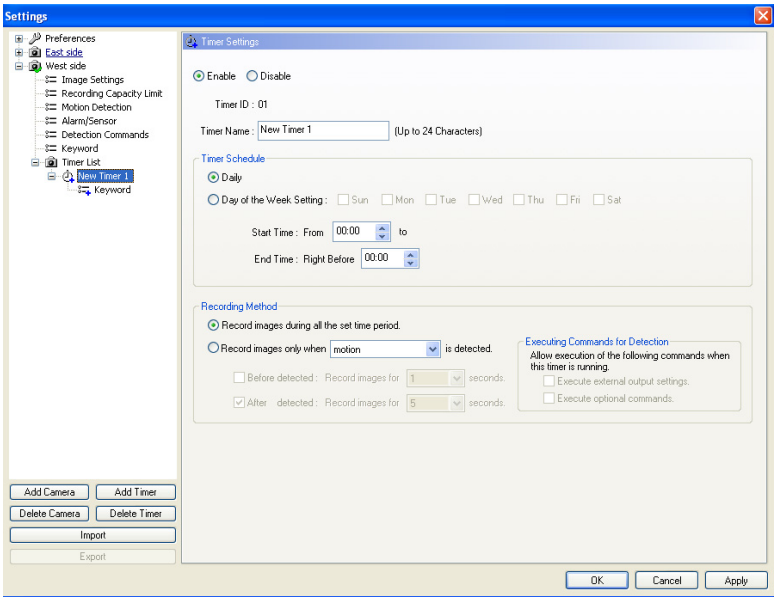
Note

The default timer name is "New Timer", followed by a number.
The number is generated automatically.
Default values are used for the other settings.

3. Configure the settings in the [Timer Settings] page, and click [OK] or [Apply].

- If you click [OK], timer settings page will close.
  If you want to register another timer, click [Apply].
- If you want to set the keyword for the recorded images, enter a keyword on the keyword page (see page 62).

Timer Settings Page



Setting	Description
Enable/Disable	Enable or disable timers. • Timer recording is available only when a timer is enabled. Disabled timers do not record.
Timer Name	Enter a timer name. (Maximum 24 characters.) The timer name is displayed on the timer list page.
Timer Schedule	To set a timer, set start time, end time and the day of the week. • Checking [Daily] sets the daily timer recording during the specified time period. • If you set the day of the week, check [Day of the Week Setting] and specify the day or multiple days of the week. If the day of the week is not checked, the timer recording is not set. • To record images for a full day, set the same start and end time. If you specify the same time for both start and end, the end time will be considered to be the next day.
Recording Method	Select timer recording, motion detection recording only or alarm detection recording only. • A time period before and after detection can be set for motion and alarm recordings. If you do not set a time period, images are recorded only at the motion is detected or an alarm is detected. • To set [all Alarm and Sensor], [Alarm1/Sensor] or [Alarm2], check [Set the Alarm1/Sensor Recording]/[Set the Alarm2 Recording] on the [Alarm/Sensor] setting window of the individual cameras.
Executing Commands for Detection	If motion detection recording or alarm detection recording is chosen for the recording method, you can specify the commands to execute when motion or an alarm is detected.

Note

- If you click , during timer recording, timer recording is not canceled. To cancel it, disable the timer.
- If you set time period over midnight, the image is divided into 2 images at midnight.
- If you close the operation window, recording will not stop.

  When is displayed in the notification area, the recording software is running (see page 9).
- If the network is disconnected during recording, recording will be paused, but the recording icon (see page 55) will still be displayed. Recording starts again when the network is reconnected.
- See page 123 for deleting timers.

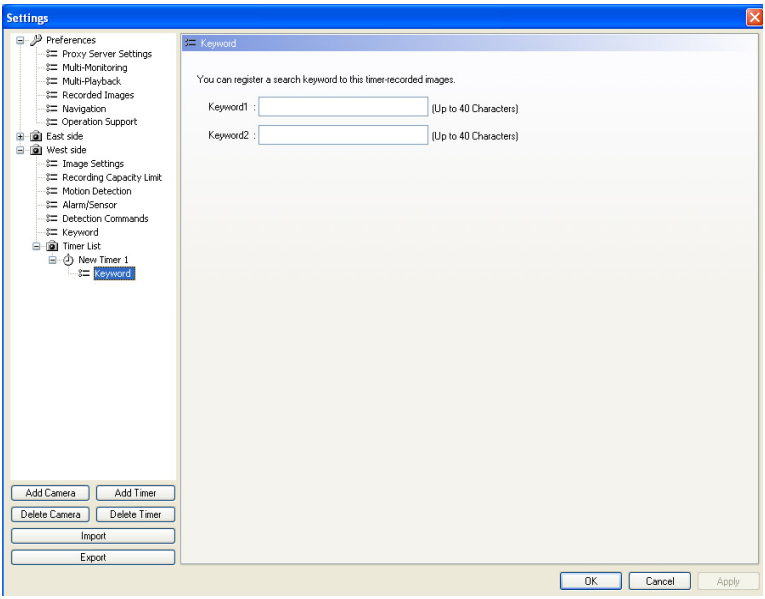
Setting Keywords for Timer Recorded Images

You can set a keyword for the images recorded by individual timers.
You can search recorded images by setting a keyword.

1. Click [Keyword] of the timer to set.

2. Enter a keyword and click [OK].

Keyword Page



Note

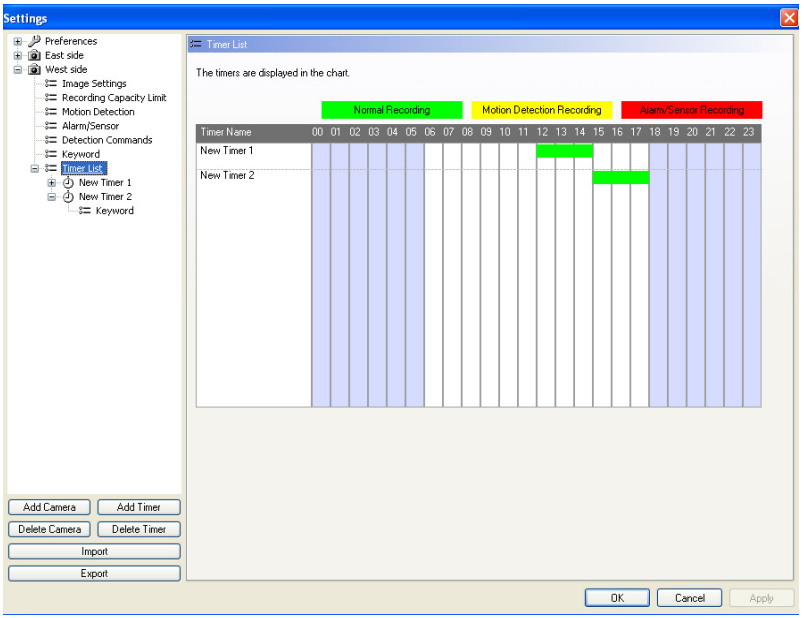
2 keywords can be set (max. 40 characters each).

Displaying Timer List

The timer schedules of the individual cameras is displayed in a chart.

1. Select the camera whose timers you want to display and click [Timer List].

Timer List Page



Note

Colors displayed in charts can be changed in [Recorded Images] page in [Preferences]. See page 77 for instructions on setting the color.When you change the color, the display on the timer list page, recorded images page and multi-display page is changed for all registered cameras.

2.5 Playing the Recorded Images

Playback operation is explained below.

Search for the images to playback (see pages 65, 67)
Display the days that have recorded images are displayed in boldface on the calendar.

Select the day that has the images to playback
Displays the recorded-image list on the Image Timelines Chart.

Drag the playback bar, and select the time to playback (see page 69)
The images in the selected time frame are displayed in the playback list.

Confirm the images on the playback screen (see page 70)
The images that are selected in the playback list can be confirmed on the playback screen.

Playback the images on the multi-playback page (see page 71)
When you select images from the playback list and click the [Playback] button, the images will be played back on the multi-playback page.

2.5.1 Display the Recorded Images

The timelines are displayed in the chart on the recorded images page.

1. Select [Window] → [Recorded Images] on the menu bar.

2. Click [Search].

- The days that have recorded images are displayed in boldface on the calendar.
- If you want to specify search criteria, enter the criteria and then click [Search] (see page 67).

3. Click the day on the calendar.

The day that has the most recent images that match the criteria is selected and displayed in the list.

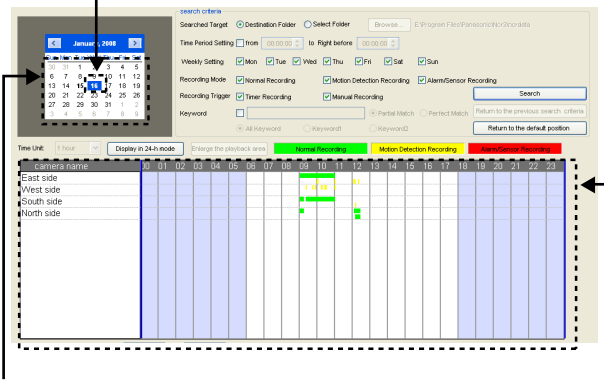
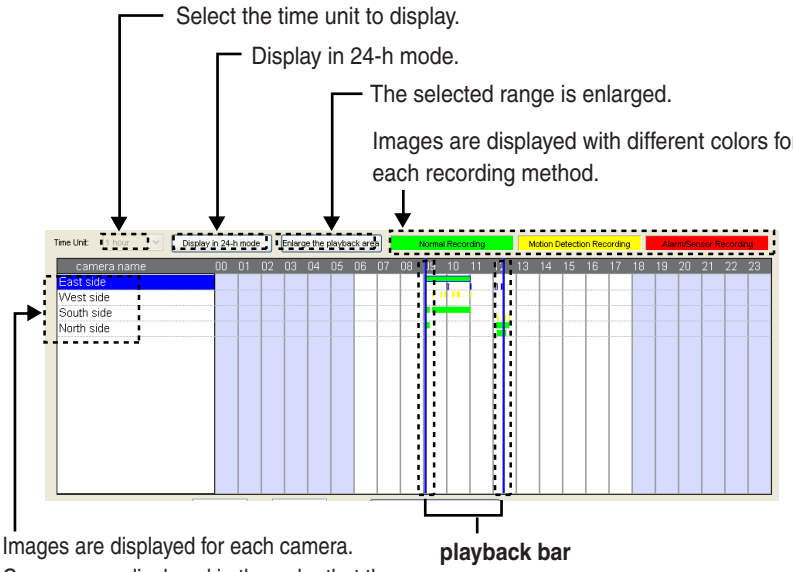


Image Timelines Chart
If you click on a day that is bold, the images recorded on that day are displayed in the chart (see page 66).

Displays the month that contains the most recent images that match the criteria.

Note

The image timelines chart displays the image timelines for one day (from 00:00:00 to 00:00:00).



Note

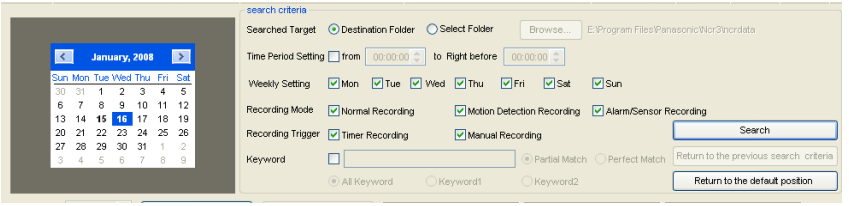
Colors displayed in charts can be changed in [Recorded Images] page in [Preferences].
See page 77 for instructions on setting the color. When you change the color, the display on the timer list page, recorded images page and multi-playback page is changed for all registered cameras.

2.5.2 Searching the Recorded Images

Search for recorded images and display them in the Image Timelines Chart.

1. Select [Window] → [Recorded Images] on the menu bar.

2. Enter search criteria and click [Search].



Search criteria

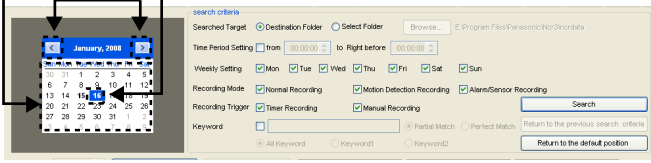
Searched Target	Select the folder to search. To search a folder other than the destination folder, select [Select Folder], click [Browse...] and select a folder.
Time Period Setting	To search by time period, select the [Time Period Setting] check box and enter a time frame.
Weekly Setting	Select the desired days of the week.
Recording Mode	Select the recording mode. • Normal recording is images recorded by using or by selecting full time recording as the timer recording method. • Motion detection recording is images recorded by using or by selecting motion detection recording as the timer recording method. • Alarm recording is images recorded by using or selecting alarm/sensor recording as the timer recording method.
Recording Trigger	Select the recording trigger (timer or manual).
Keyword	Select this check box to enable keyword search. Enter the keyword for the recorded image.

- Days that have images that match the criteria are displayed in boldface on the calendar.

Displays the month that contains the most recent images that match the criteria.

Change the month

The day on which the most recent images were recorded in the displayed month is selected.



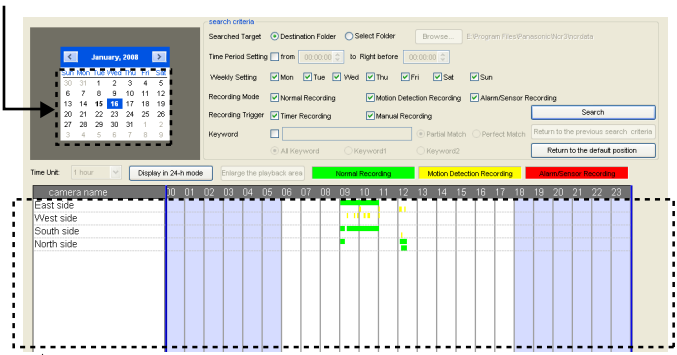
Note

- Clicking [Return to the default position] sets the search criteria to their default values. To search all recorded images, click [Return to the default position] and click [Search].
- When you change search criteria, [Return to the previous search criteria] becomes available. To return the criteria to their previous values, click [Return to the previous search criteria] and click [Search].
- If you change the month, images that match the criteria for the new month are displayed.

3. On the calendar, click the day that has the images that you want to playback.

- The images that match the criteria for the selected day are displayed in the image timelines chart for each camera.
- Blocks representing recorded images are displayed in the chart.

Click the day that has the images that you want to playback.



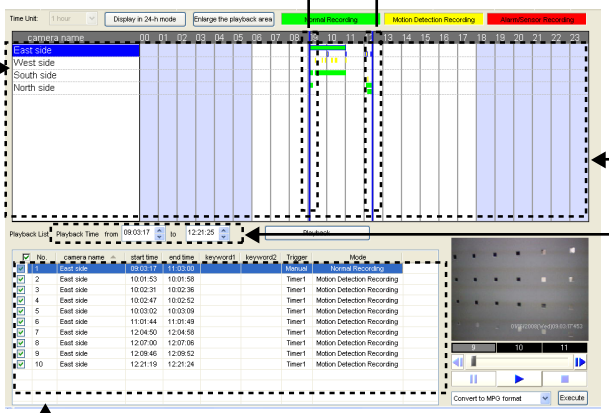
The images that match the criteria for the selected day are displayed for each camera.

2.5.3 Confirm the Recorded Image on the Playback Screen

1. Select [Window] → [Recorded Images] on the menu bar.
2. Search for recorded images and display them in the image timelines chart.
3. Select a camera to playback the images on the image timelines chart.
   - You can select cameras up to the number of images set in the [Multi-Playback] page in [Preferences] (see page 85). If you select more than this number, the following message will be displayed.

4. Set the start and end times for playback by dragging the playback bar.
   - If you click the camera name, the playback bar is set to start at the first image and end at the last image.
   - The playback bar moves by jumping to every recorded images.
     If you want to move the playback bar to a specific position, move the playback bar while holding down the [Shift] key.
   - The images surrounded by the playback bar are displayed in the playback list.

Select the camera to play back.



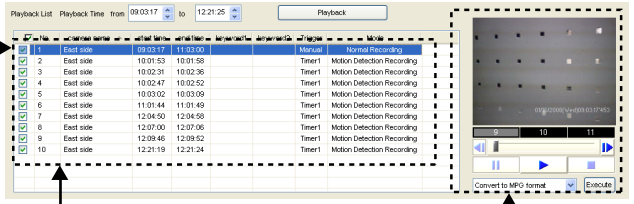
Playback bar
Set the start and end times by dragging the playback bar.

Image Timelines Chart

Displays the time selected by the playback bar.If you set the time manually, the playback bar moves to the set time.

Playback list
Images surrounded by the playback bar for the selected camera are displayed in the playback list.

5. Select the recorded images in the playback list.



Playback list

Playback Screen
The still image at the start time of the selected image is displayed.

Select the recorded image to confirm it.
Start playback of the recorded image on the playback screen by double-clicking it.

6. Confirm the selected image on the playback screen.

Edit menu
Edit the displayed image (see page 89).

Slider bar
The playback position can be set by dragging the bar.

Start playback.

Stop playback.

Pause playback.
The button changes to while paused.

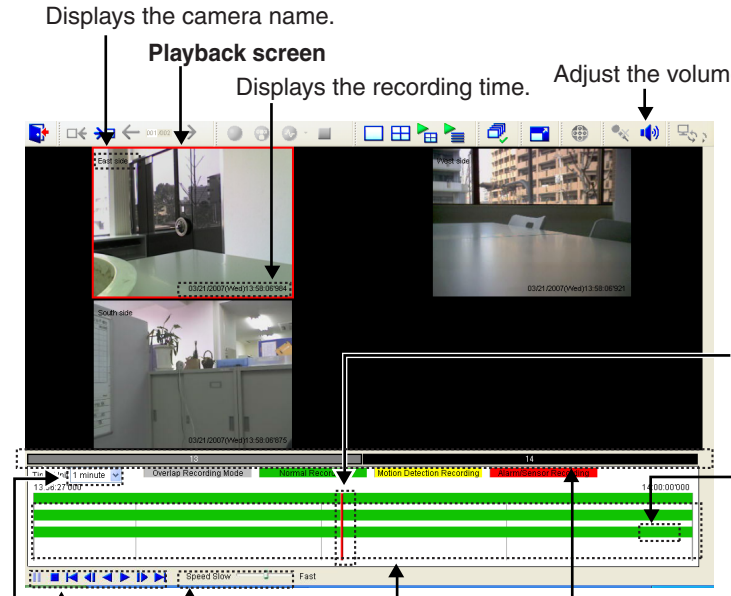
- To start playback again, click .

2.5.4 Playback Recorded Images on the Multi-Playback Page

You can simultaneously playback the recorded images of a maximum of 4 cameras.

1. Select [Window] → [Recorded Images] on the menu bar.
2. Select the recorded images, set the time period, and click [Playback].
   - Recorded images selected on the playback list on the recorded images page are displayed on the multi-playback page in the order top left, top right, lower left, lower right and playback for the individual cameras.
   - Playback the image from the start time set on the playback list.
     If a selected camera has no recorded images at the set time, no image is displayed for that camera.

Multi-Playback Page

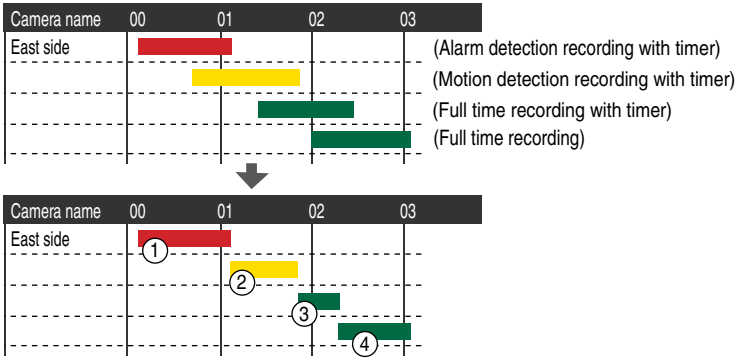


Playback button

	Pause playback. The button is changed to during pause. • To start playback again, click .
	Stop playback.
	Displays the image at the playback start time.
	Display a previous image from the displayed image.
	Reverse playback.
	Start playback.
	Display a next image from the displayed image.
	Displays the image at the playback end time.

Note

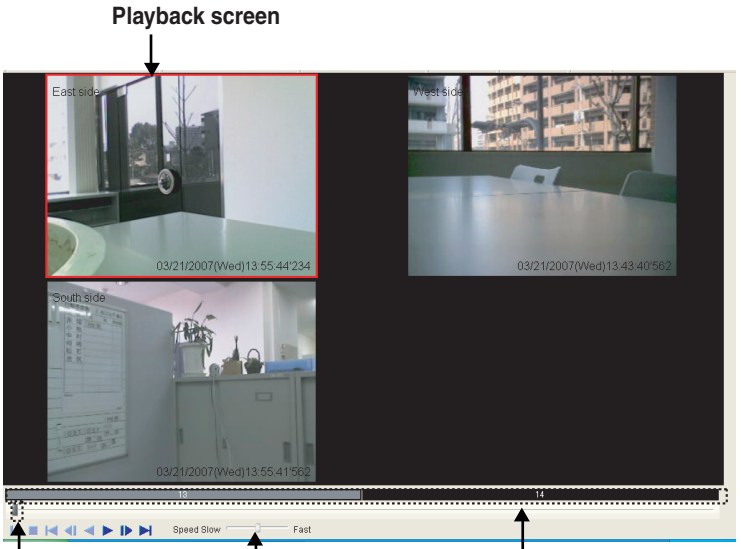
- You can rearrange the images on the multi-playback page by dragging and dropping the images (see page 82). When you restart this software, the original order is restored.
- The settings (camera name, recording time, frame rate display, number of screens in a window, multi-playback page layout, etc.) can be changed for the multi-playback page on the preference page (see page 84).
- If there are overlapping recordings on the same camera, the images are played back in the order in which they were recorded.



Images are displayed in the order ① to ④.

Standard display

If you select [Standard] as the playback-position display format in the multi-playback page on the preference page (see page 85), the image will be displayed in standard mode.



Speed slider bar
You can specify the playback speed. [x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16]

Jump button
Displays the time-period button in increments of 1 hour. Clicking the timer period displays images from that hour onwards.

Slider bar
The playback position can be set dragging the cursor. Playback will pause while dragging the cursor.

Note

- Right-clicking on an image displays the edit menu. On the multi-playback page, you can copy images to the clipboard, snapshot, perform file conversion, change the keywords, and display information about the recorded image. For instructions, see “Editing Recorded Images” (see page 89).
  To set the start and end times for a file conversion, click each button and set the times.
- If you click or , the cursor moves by jumping to the time of the next/previous recorded image.

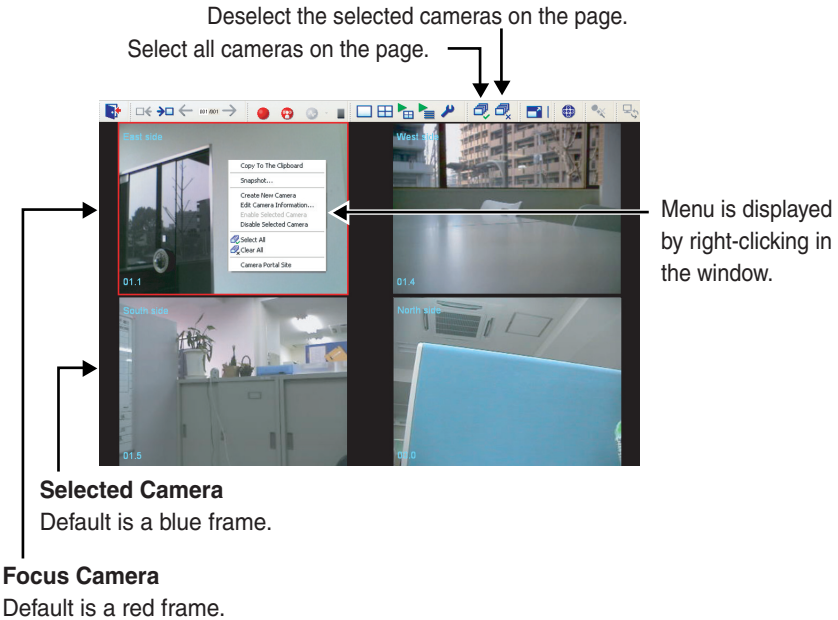
2.6 Application Window Operation

2.6.1 Selecting Camera

The camera that is selected on the multi-monitoring page is the focus camera.

When you start the software, the first registered camera is set as the focus camera.

- To select multiple cameras, click the camera images while pressing [Ctrl] key.
- To select all cameras displayed in the window, select [Select All] from [Layout] on the menu, or select on the toolbar.
- To deselect all selected cameras, select [Clear All] from [Layout] on the menu or select on the toolbar.



Note

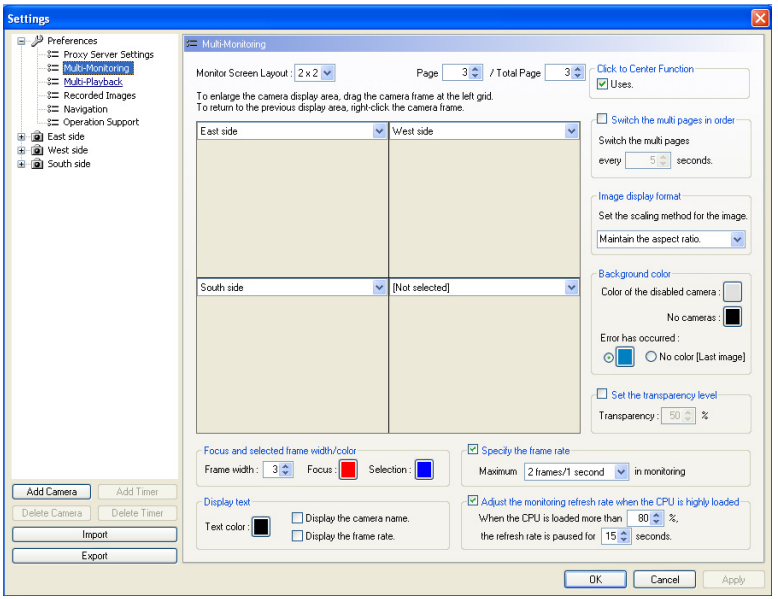
- If there is more than one page to display, selected cameras are deselected when you change pages.
- You can change the width and color of the frames for the focus camera and selected cameras (see page 76).
- You can also select and deselect cameras by using [Select All] and [Clear All] from the menu displayed when you right-click in the window.

2.6.2 Multi-Monitoring Page Settings

You can change the camera layout from the multi-monitoring page.

1. Select [Window] → [Settings] on the menu bar.
2. Click [Preferences] → [Multiple-Monitoring].
3. Configure the settings in the [Multiple-Monitoring] page and click [OK].

Multi-Monitoring Page



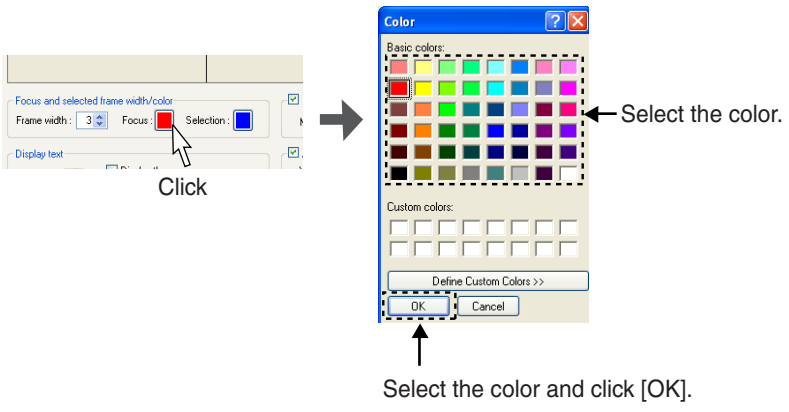
Setting	Description
Monitor Screen Layout	Configure the screen layout (rows x columns) for a window. You can simultaneously monitor the images of a maximum of 64 cameras. (1 x 1, 2 x 2 (Default), 3 x 3 to 8 x 8)
Page/Total Page	If the number of registered cameras exceeds the limit of screens in a window, extra pages are automatically created to accommodate the number of cameras. If there are several pages, select the page that you want to configure settings for.
Setting the camera to display	When you click in a display frame, a list of your registered cameras is displayed. Select the camera that you want to display in the frame.
Click to Center Function	You can select whether or not to use the click to center function. Clear the check mark if you will not use the function.
Switch the multi pages in order	If there are several pages of images, select [Switch the multi pages in order] to automatically switch the page every specified number of seconds (see page 80). (1 to 60 seconds Default: 5 seconds)
Image display format	Configure the aspect ratio of displayed camera images. Fits the entire display area: Resize the image to fit in the display area. Maintain the aspect ratio: Resize the image to fit the window while maintaining the aspect ratio of the camera. Untouched centering display: Display the image at actual size, centering the image in the display frame.
Background color	Configure the background colors for the frames of disabled cameras (see page 21), error cameras and no camera (see page 80). Specify the colors for each background, respectively. The defaults are Disabled camera: Gray, Error camera: Blue and No camera: Black.
Set the transparency level	Select the check box to set the transparency level of the image information (camera name, frame rate, motion detection bar, recording icon) that is displayed on the multi-monitoring page. The default is 50%.
Focus and selected frame width/color	You can change the width and color of the frames for the focus camera and selected cameras. Specify the colors for each frame respectively. The defaults are frame width: 3, focus frame: Red and selected frame: Blue.

Setting	Description
Specify the frame rate	Select the check box to update the images on the multi-monitoring page with the specified interval as the maximum frame rate. [1 frame/1 second to 1 frame/10 seconds, 2 frames/1 second to 5 frames/1 second, 10 frames/1 second to 30 frames/1 second (per 5 frames). Default is 2 frames/1 second]
Display text	Select the check box to display the camera name and the frame rate on the multi-monitoring page (see page 81). You can also set the text color.
Adjust the monitoring refresh rate when the CPU is highly loaded.	Select the check the box to pause the multi-monitoring page for the specified number of seconds when the CPU usage reaches the specified value. [Pause time 1 second to 60 seconds, Default is 15 seconds. CPU Load factor is 1 % to 100 %, Default is 80 %]

Note

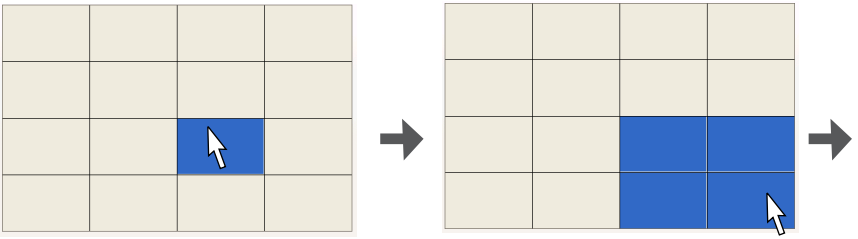
To change the color of the focus frame or the selection frame, click the setting that you want to change and select the desired color from the [Color] window, then click [OK].

Example: To change the color of focus frame.



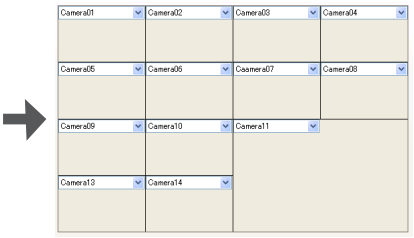
Enlarging the Image Frame

You can enlarge an image frame if the aspect ratio is the same.



1. Click the image frame to enlarge.
   - The background of the selected camera frame turns blue.

2. Drag (moving the mouse while holding down the left button) the images.
   - The selection is enlarged, maintaining the aspect ratio.

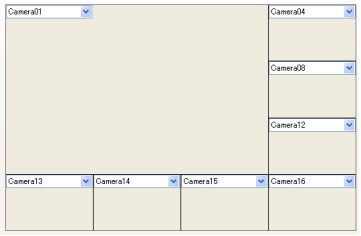


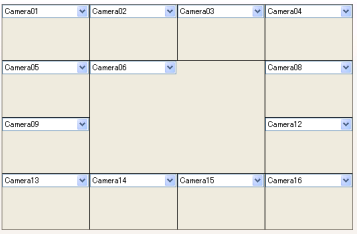
3. Release the left mouse button.
   - The camera frame is enlarged.

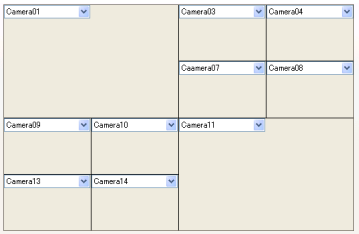
Multi-Monitoring Page

After switching to the multi-monitoring page, the image is enlarged for the target camera.

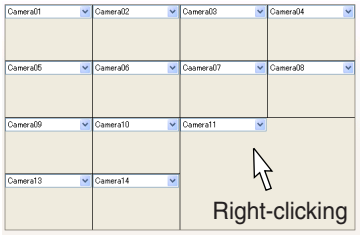
Enlarged Display Examples:

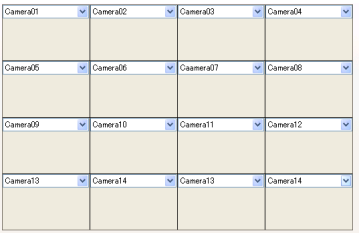






The enlarged image is returned to its original size by right-clicking on the image.

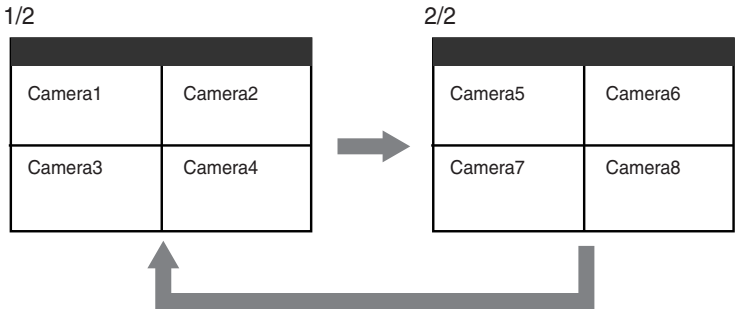




Switching Pages

If there are several pages to display on the multi-monitoring page, selecting [Switch the multi pages in order] lets you switch the page display automatically at the specified interval.

Example: If there are 2 pages:

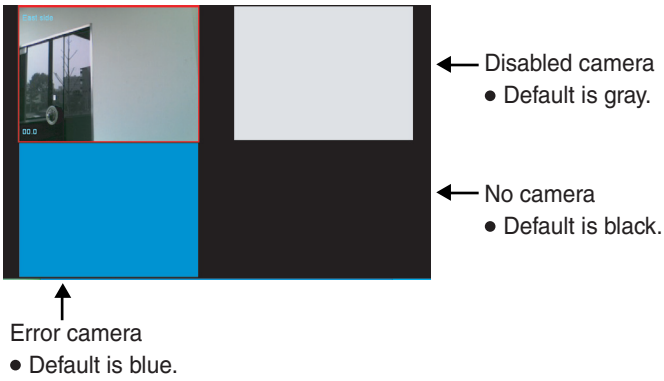


Note

Changing to single-monitoring page while switching is running on the multi-monitoring page temporarily stops switching. Switching will restart when you return to the multi-monitoring page.

Background Colors for Disabled Cameras and Error Cameras

The background colors of disabled cameras, error cameras and no camera are set in [Multi-Monitoring] → [Background color] from [Preferences] (see page 76).



Note

Specify the different colors for disabled cameras and error cameras respectively.

Displaying Camera Name and Frame Rate

The registered camera name and the set frame rate are displayed on the multi-monitoring page.

Camera name, display/hide frame rate, text color and text transparency are set in [Preferences] → [Multi-Monitoring] (see page 75).

The registered camera name is displayed.

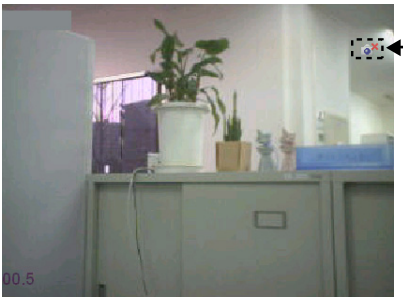
Frame rate (image refreshing frequency) is displayed.

High CPU Load Pausing

When you select [Adjust the monitoring refresh rate when the CPU is highly loaded], monitoring is paused when the CPU load exceeds a specified threshold.

is displayed when monitoring is paused.

While monitoring is paused, the monitoring window displays the image that was displayed just before pausing. When recording, an icon is displayed in the image just before pausing.

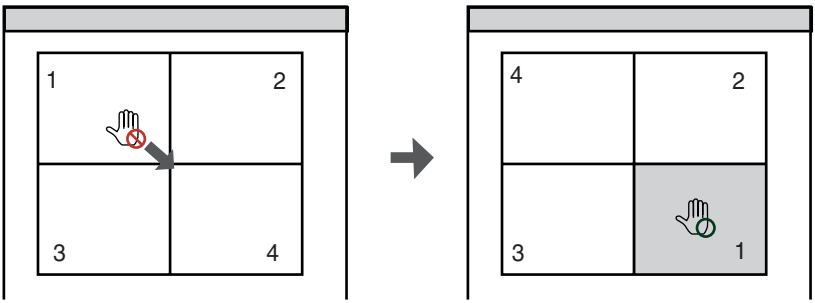


Displayed when monitoring is paused.

Rearranging the Image Order

You can rearrange the order of camera images on the multi-monitoring page.

1. Drag (moving the mouse while holding down the left button) the image.
   - The mouse pointer changes to .
2. Drop (release the left mouse button) the image at the location where you want to place it.
   - Release the left button when the icon changes from to .
     (The icon changes to when in an area where an image can be moved.)
   - The images are rearranged.



Note

- If there are several pages to display, use the [Page Down] and [Page Up] keys to change pages.
  To rearrange the selected image with the one of the camera displayed in the next page, press [Page Down] (for the next page) or [Page Up] (for the previous page) while dragging the image, then drop it at the location where you want to place it.
- The new order is maintained when you restart this software.
- You can also rearrange the playback images on the multi-playback page (see page 86).

2.6.3 Setting Playback Volume

The audio playback/mute (audio pause) and volume are adjusted by using the volume icon in the toolbar.

Playback Sounds

When the toolbar's audio icon is , audio from the focus camera and selected camera is played.

- See page 74 instructions on selecting cameras.

Stop Audio Playback (Mute)

Audio playback from the focus camera and selected camera stops when the toolbar's audio icon is .

- Clicking changes the icon to .

Adjust the Playback Volume

Right-click on the toolbar to display the volume adjustment slider.

Use the slider to adjust the volume.

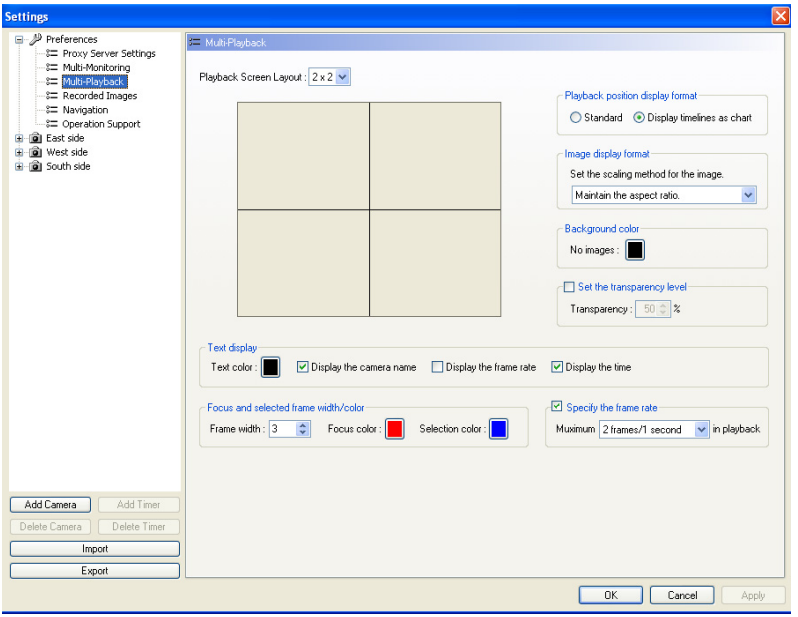
2.6.4 Multi-Playback Page Settings

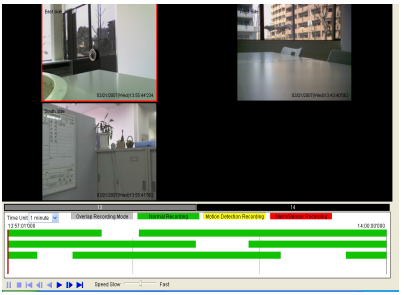
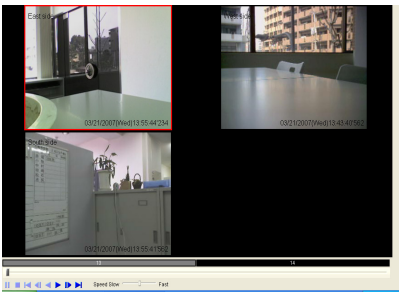
The layout of multi-playback page is configured on the settings page.

1. Select [Window] → [Settings] on the menu bar.

2. Click [Preferences] → [Multi-Playback].

3. Configure the settings in the [Multi-Playback] page and click [OK].



Setting	Description
Playback Screen Layout	Configure the screen layout (rows x columns) for a window. [1 x 1, 2 x 2 (Default)]
Playback position display format	Set the display format of the multi-playback page. [Display timelines as chart]  [Standard] 
Image display format	Configure the aspect ratio of displayed camera images. Fits the entire display area: Resize the image to fit in the display area. Maintain the aspect ratio: Resize the image to fit the window while maintaining the aspect ratio of the camera. Untouched centering display: Display the image at actual size, centering the image in the display frame.
Background color	Configure the background colors for the frames of camera which has no image in the set time period. Default is black color.
Set the transparency level	Select the check box to set the transparency level of the image information (camera name, frame rate and time) that is displayed on the multi-playback page. The default is 50%.

Setting	Description
Text display	Select the check box to display the camera name, the frame rate and the recording time on the multi-playback page. You can also set the text color.
Focus and selected frame width/color	You can change the width and color of the frames for the focus camera and selected cameras. Specify the colors for each frame respectively. The defaults are frame width: 3, focus frame: Red and selected frame: Blue.
Specify the frame rate	Select the check box to refresh the image on the multi-playback page at the specified interval as the maximum frame rate. [1 frame/1 second to 1 frame/10 seconds, 2 frames/1 second to 5 frames/1 second, 10 frames/1 second to 30 frames/1 second (per 5 frames). Default is 2 frames/1 second]

Rearranging Multi-Playback Images Order (for four-screen layout only)

You can rearrange the order by dragging an image and dropping it at the desired location on the multi-playback page.
The method for rearranging the images is same as on the multi-monitoring page (see page 82).

Note

The order of the images on the multi-playback page returns to the original order after you restart this software.

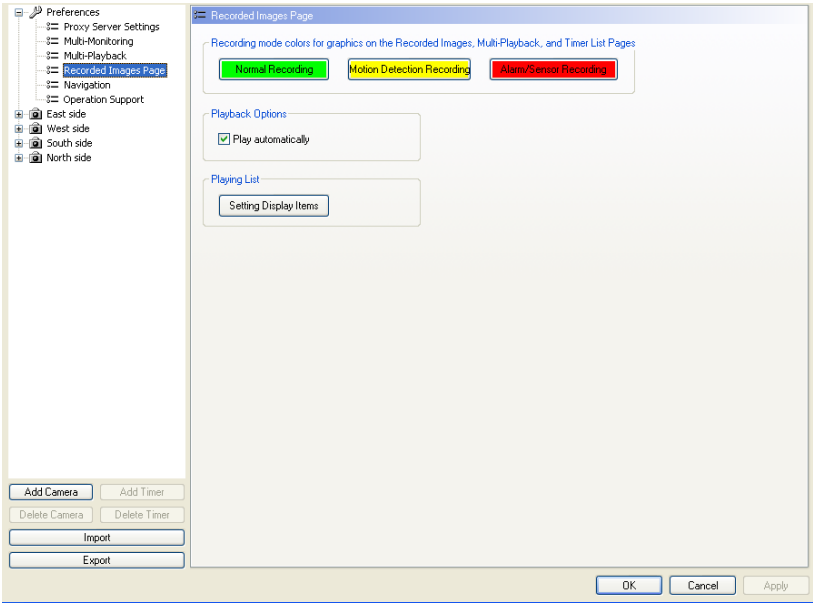
2.6.5 Recorded Images Page Settings

Set the layout of the recorded images page.

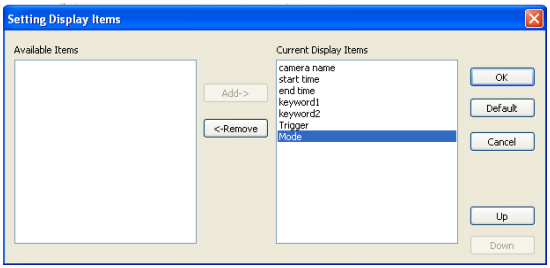
1. Select [Window] → [Settings] on the menu bar.

2. Click [Preferences] → [Recorded Images].

3. Configure the settings in the [Recorded Images] page and click [OK].



Setting	Description
Recording mode colors for graphics on the Recorded Images, Multi-Playback, and Timer List Pages	Set colors of blocks representing recorded images on the Recorded Images, Multi-Playback, and Timer List Pages. See page 77 for color settings.
Playback Options	Set whether or not to automatically playback images on the multi-playback page when you select recorded images from the [Playback List] on the [Recorded Images] page and click the [Playback] button. To automatically playback images, select the [Play automatically] check box.

Setting	Description
Playing List	Select the items to display and the order in which to display them in the [Playback List] in the [Recorded Images] page. • Items in the [Current Display Items] list are displayed in the Playback List. • Clicking the [Remove] button will move items selected in the [Current Display Items] list to the [Available Items] list. • Items are displayed in the [Playback List] in the order they appear in the [Current Display Items] list. To change the order, select an item and click the [Up] and [Down] buttons. 

2.7 Editing Recorded Images

Recorded images can be edited on the [Playback Screen] of the [Recorded Images] page.
You can perform the following operations.

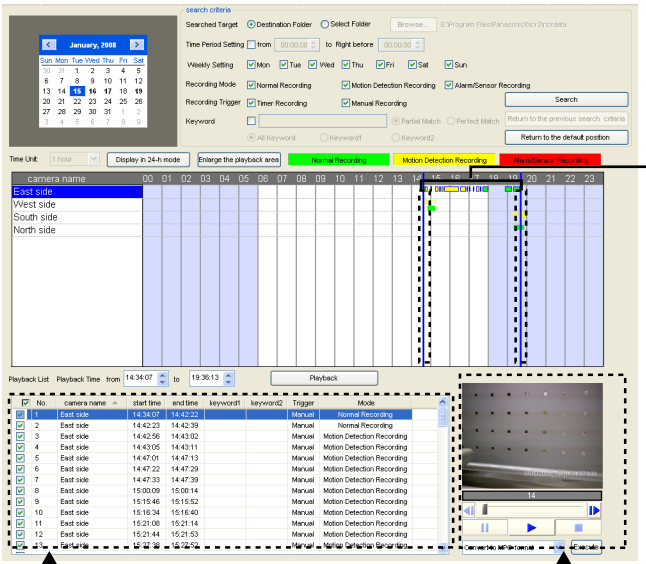
- Playback (See page 70)
- File Conversion (to MPG/JPG/WAV/ASF/AVI files) (See page 90)
- Copying/Deleting the Recorded Images (See page 98, 100)
- Changing the Keyword (See page 101)
- Copy to the Clipboard (See page 102)
- Take a Snapshot (See page 102)
- Displaying the Recorded Image Information (See page 104)

1. Select [Window] → [Recorded Images] on the menu bar.

2. Search for the recorded image to edit and display it on the playback list (see page 69).

3. Select the recorded image from the playback list.
- The still image at the start time of the selected image is displayed on the playback screen.

4. Edit the image on the playback screen.
- Perform any of the above operations.
  For details, see the corresponding section.



Playback bar
If you click the camera name, the playback bar is set to start at the first image and end at the last image of selected camera.

Playback List
Images surrounded by the playback bar for the selected camera are displayed in the playback list.

Playback Screen
Display/Edit the recorded image selected from the playback list.

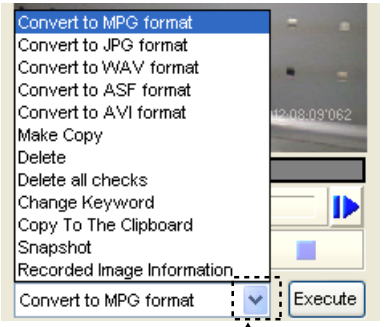
2.7.1 Converting the Recorded Images

You can convert the format of a recorded image to MPG/JPG/WAV/ASF/AVI formats.

Converting the Recorded Images to MPG/WAV/ASF/AVI formats

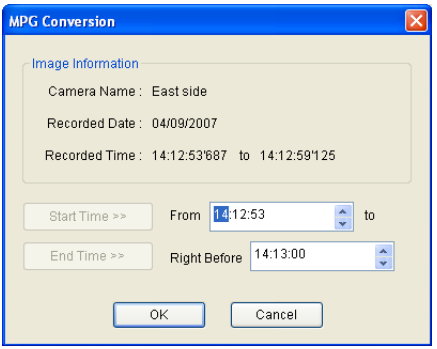
[Converting one recorded image]

1. Select the image that you want to convert in [Playback list].
   - See page 89 for how to display recorded images in [Playback list].
2. Select the file format from the editing menu and click [Execute].

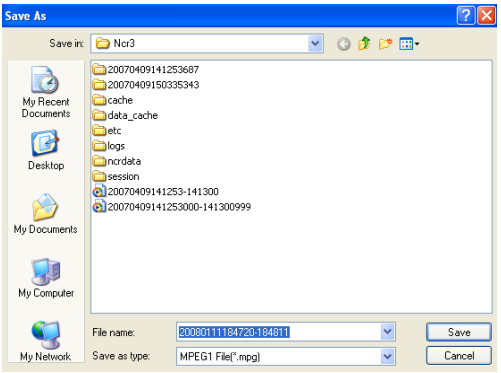


3. To specify a time frame, set start time and end time, and click [OK].
   - If you do not set a time frame, all selected images will be converted.

   Example: Converting images to MPG format.

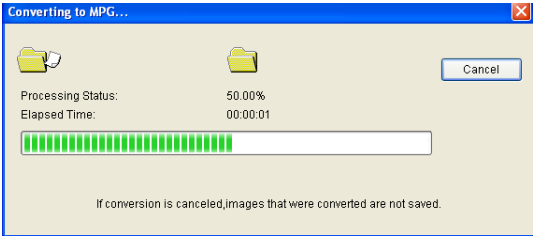


- The save as window is displayed.

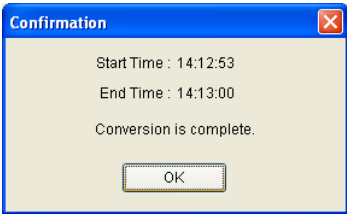


4. Select the destination folder, enter a file name and click [Save].

- Conversion is started.



- When the conversion is completed successfully, the following window is displayed.

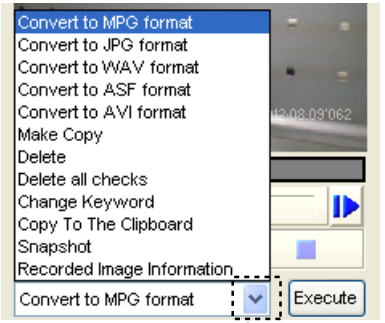


Note

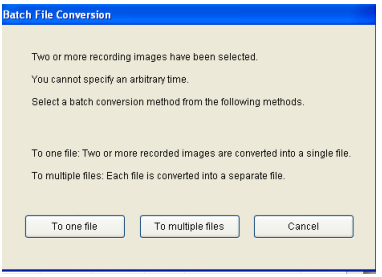
- The file name is set to the start time and end time of recording by default.
- A confirmation screen is displayed if a file with the same name already exists. To overwrite the existing file, click [Yes]. To save the file under a different name, click [No], then enter a different file name.
- The file extensions are determined by converted file formats (mpg, avi, asf, wav).
- The converted image can be played back with Windows Media Player (Version 9.0 or later).
- If conversion is canceled, images that were converted are not saved.

[Converting multiple recorded images into one file]

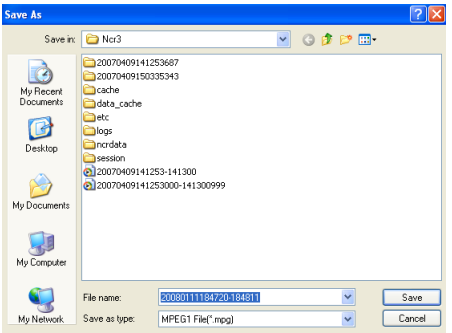
1. Select the images that you want to convert in [Playback list].
   - See page 89 for how to display recorded images in [Playback list].
   - To select multiple images, click the images while pressing [Ctrl] key.
2. Select the file format from the editing menu and click [Execute].



3. Click [To one file].

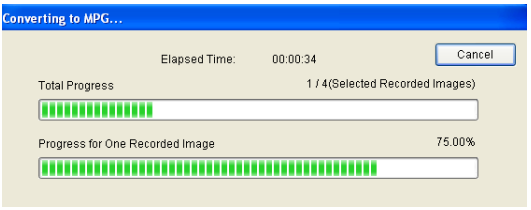


- The save as window is displayed.

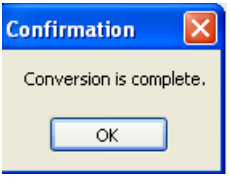


4. Select the destination folder, enter a file name and click [Save].

- Conversion is started.



- When the conversion is completed successfully, the following window is displayed.

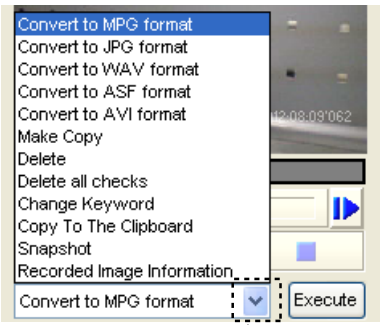


Note

- The file name is set to the start time and end time+1 second of the first image by default.
- A confirmation screen is displayed if a file with the same name already exists. To overwrite the existing file, click [Yes]. To save the file under a different name, click [No], then enter a different file name.
- The file extensions are determined by converted file formats (mpg, avi, asf, wav).
- The converted image can be played back with Windows Media Player (Version 9.0 or later).
- If conversion is canceled, images that were converted are not saved.

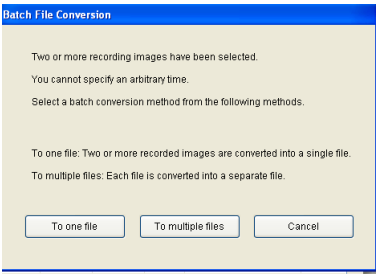
[Converting multiple recorded images into separate files]

1. Select the images that you want to convert in [Playback list].
   - See page 89 for how to display recorded images in [Playback list].
   - To select multiple images, click the images while pressing [Ctrl] key.
2. Select the file format from the editing menu and click [Execute].

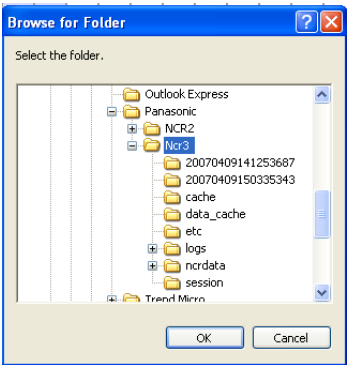


The editing menu is displayed by clicking here.

3. Click [To multiple files].

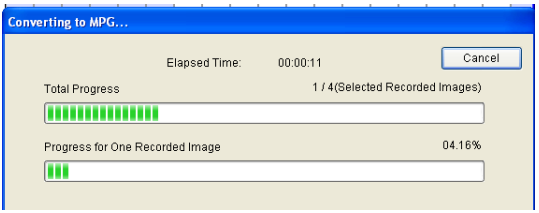


- The folder selection window is displayed.

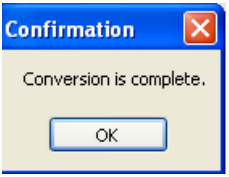


4. Select the destination folder, and click [OK].

- Conversion is started.



- When the conversion is completed successfully, the following window is displayed.



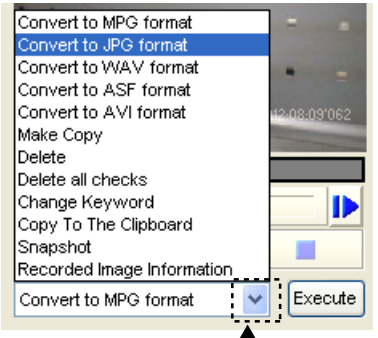
Note

- The file name for each selected image is set to its start time and end time+1 second.
- If files have the same name, _XXX is appended to the end of the file name. XXX is a 3-digit number in the range 001 - 999.
- The file extensions are determined by converted file formats (mpg, avi, asf, wav).
- The converted image can be played back with Windows Media Player (Version 9.0 or later).
- If conversion is canceled, images that were converted are not saved.

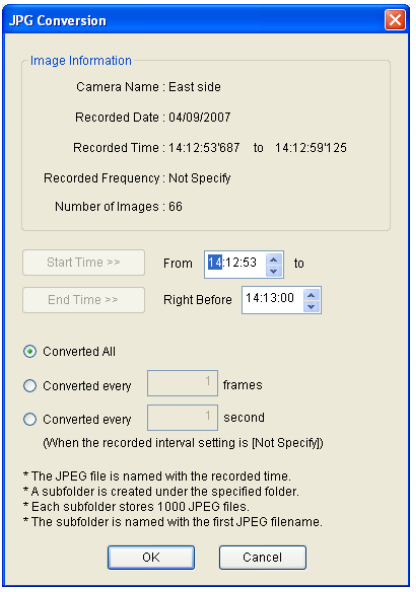
Converting the Recorded Images to JPG format

[Converting one recorded image]

1. Select the image that you want to convert in [Playback list].
   - See page 89 for how to display recorded images in [Playback list].
2. Select [Convert to JPG format] from the editing menu and click [Execute].

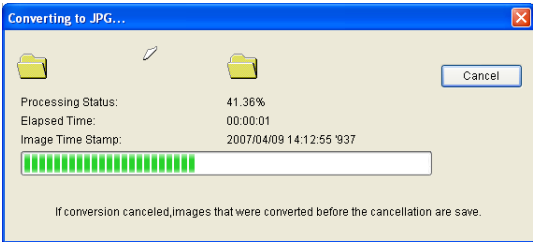


3. To specify a time frame, set start time and end time.
   - If you do not set a time frame, all selected images will be converted.
4. Set the interval to convert.

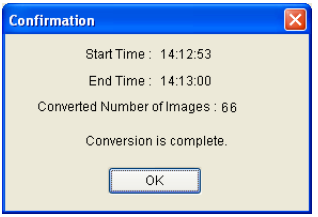


5. Click [OK].
- The folder selection window is displayed.

6. Select the destination folder, and click [OK].
- Conversion is started.



- When the conversion is completed successfully, the following window is displayed.



[Converting multiple recorded images]

The procedure is the same as that for [Converting recorded images into MPG/WAV/ASF/AVI files]. See page 94.

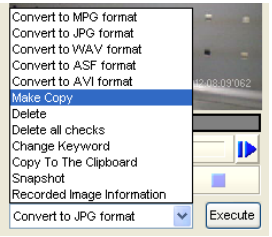
Note

- When converting multiple recorded images to JPG format, you cannot use [To one file].
- Images converted to JPEG format are saved in a subfolder in the destination folder. The name of the subfolder is set to the start time. A new subfolder is created each 1,000 images.
- If conversion is canceled, images that were converted before the cancellation are saved.

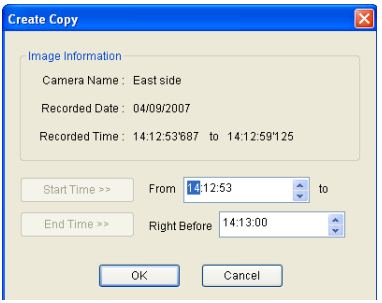
2.7.2 Copying the Recorded Images

You can extract recorded images for a specific time frame and create a new recording file.

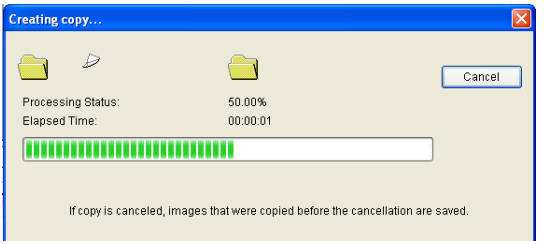
1. Select the image that you want to copy in [Playback list].
   - See page 89 for how to display recorded images in [Playback list].
2. Select [Make Copy] from the editing menu and click [Execute].



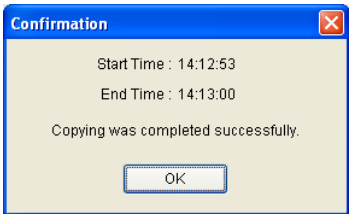
3. Specify the start and end time of the images to extract.



4. Click [OK].
   - The copy operation is started.



- When copy operation is completed successfully, the following window is displayed.



Note

If copying is canceled, images that were copied before the cancellation are saved.

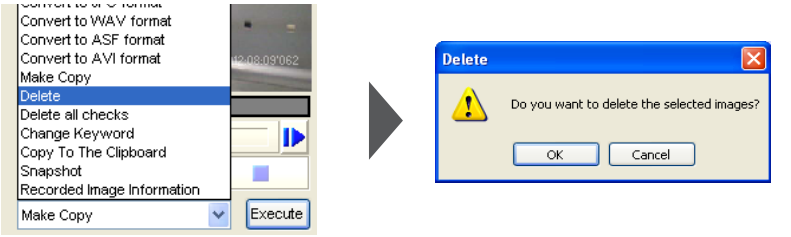
2.7.3 Deleting the Recorded Images

You can delete recorded images on [Playback Screen].

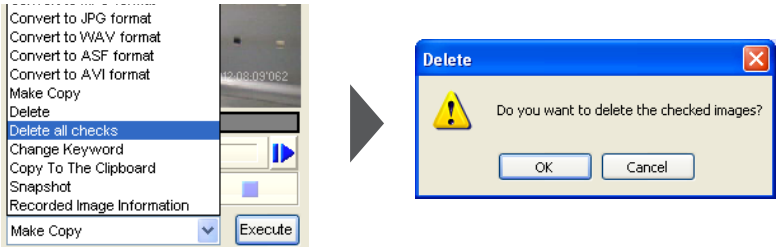
1. Select the image that you want to delete in [Playback list].

- See page 89 for how to display recorded images in [Playback list].

2. **Deleting the displayed image**
Select [Delete] from the editing menu and click [Execute].



Delete all recorded images that are checked in the playback list
Select [Delete all checks] from the editing menu and click [Execute].



3. Click [OK] on the confirmation window.

- The selected images are deleted.

Note

Although it appears that the deletion operation finishes quickly, the actual deletion of the files takes some time.

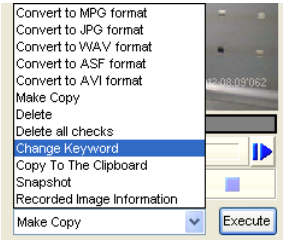
2.7.4 Changing the Keyword of the Recorded Images

You can change the keyword set to the recorded images.

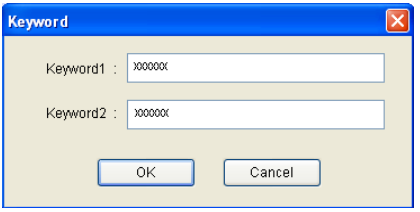
1. Select the image that you want to change the keyword in [Playback list].

- See page 89 for how to display recorded images in [Playback list].

2. Select [Change Keyword] from the editing menu and click [Execute].



4. Changing the keyword.



5. Click [OK].

- The keyword is changed.

Note

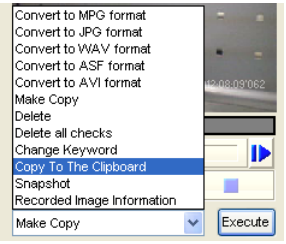
You can also change the keyword on the multi-playback page by right-clicking on the playback screen and selecting [Change Keyword].

2.7.5 Copying Display Screens

[Copy to the Clipboard]

Copy image displayed in the playback page to the Clipboard.

1. Select the image that you want to copy in [Playback List].
   - See page 89 for how to display recorded images in [Playback list].
2. Select [Copy To The Clipboard] from the editing menu and click [Execute].

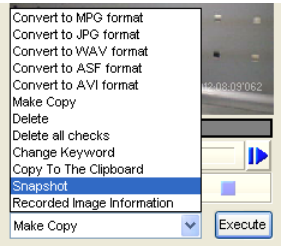


- Copy image displayed in the playback page to the Clipboard.

[Take a Snapshot]

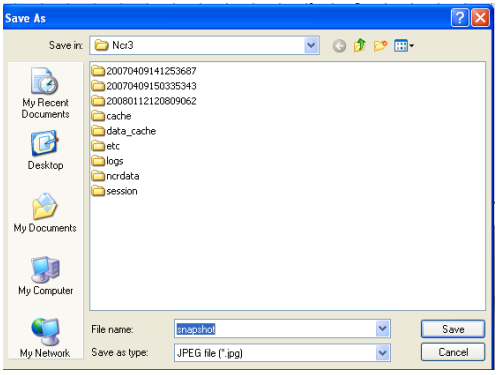
Take a snapshot of image displayed in the playback page.

1. Select the image that you want to take a snapshot in [Playback List].
   - See page 89 for how to display recorded images in [Playback list].
2. Select [Snapshot] from the editing menu and click [Execute].



3. On the snapshot page, click [Save].

- The save as window is displayed.



4. Select the destination folder, enter a file name and click [Save].

Note

- Clicking [Copy To The Clipboard] copies image to the Clipboard.
- The clipboard is a place to temporarily save in copying or pasting data. The copied image can be used in the program such as Paint.

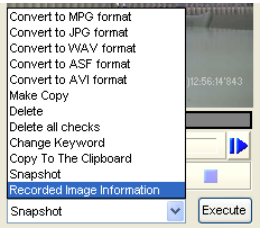
2.7.6 Displaying the Recorded Image Information

You can display information about a recorded image.

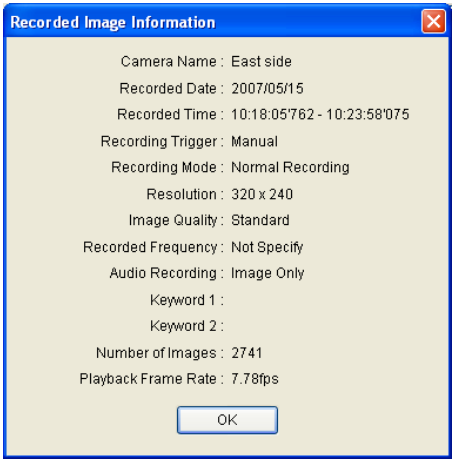
1. Select the image whose information you want to display in [Playback List].

- See page 89 for how to display recorded images in [Playback list].

2. Select [Recorded Image Information] from the editing menu and click [Execute].



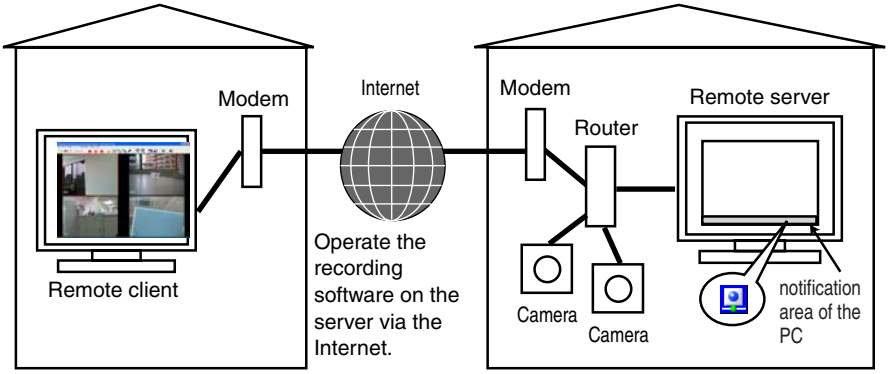
- Displaying Recorded Image Information.



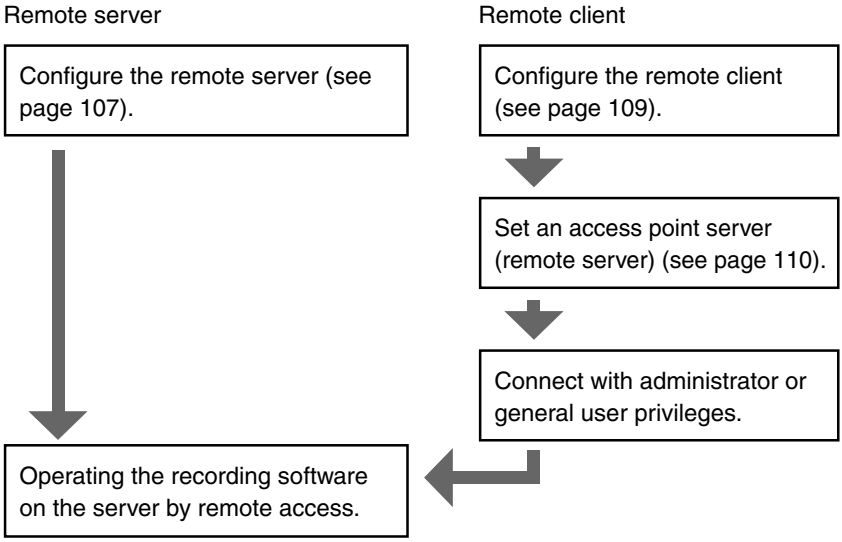
2.8 Use Remote Access Functions

Using the recording software on a separate PC, you can view the recorded images from a Panasonic Network Camera connected to a PC (remote server) registered with the recording software.

- To use remote access functions, you must install the recording software on the remote server and remote clients. You must have enough licenses for the remote server and remote clients.
- Only one remote client can be connected to a remote server at a time. Other PCs cannot connect to a remote server when one is already connected.
- Some operations, such as Executing Restore Program, cannot be used (see page 111).
- It may not be possible to connect to a remote server from proxy servers that serve as the company firewall. If you have difficulties connecting to a remote server, consult a network administrator.
- You may have problems using a remote server if you access it through a proxy server. Consult a network administrator before configuring a remote server.



The following chart illustrates the configuration procedure.



Note

To use as a remote server, you must assign an IP address or domain name in order to connect to this software. An IP address can be obtained from your provider. A domain name can be obtained by registering with the Panasonic Viewnetcam.com service.

If you have already registered with Panasonic Viewnetcam.com, use the domain name obtained when you registered. For details about Viewnetcam.com, see the operating instructions for your Network Camera.

2.8.1 Configuring the Settings

To use remote access functions, you must install the recording software on the remote server and remote clients.

Before you can use remote access functions, you must install the recording software on your PC.

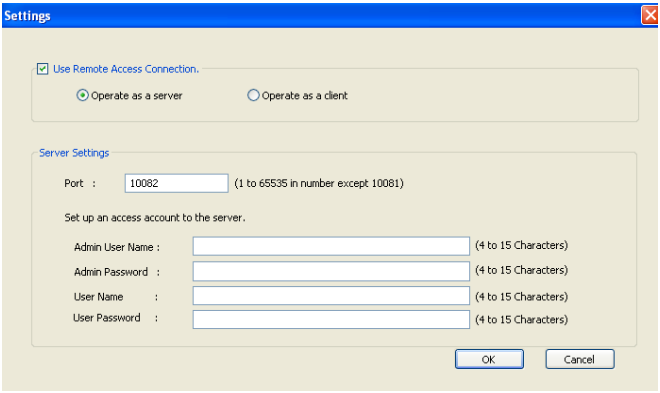
Note

- You must register one license for each remote server and remote client PC.
- If you do not use remote access functions, this software install on the remote server and remote client can use the software as a normal recording software.

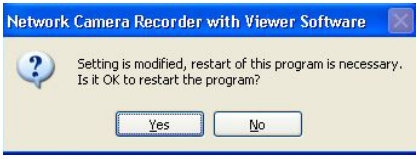
[Remote Server Settings (remote server function)]

Configure the following settings after installing this software on a PC to be used as a remote server.

1. Select [Remote Access] → [Settings] on the menu bar.
2. Select the [Use Remote Access Connection] check box on the [Settings] screen.
3. Select [Operate as a server], configure the server settings and click [OK].



4. Click [Yes].



- After you restart the program, it will operate as a remote server.

Setting	Description
Use Remote Access Connection	Select this check box when you are using remote access functions. Select [Operate as a server] to use as a remote server.
Server Settings	• Port Enter a port number. (Enter a number from 1 to 65535, except for 10081. Default is 10082.) • Admin User Name/Admin Password Enter the user name and password to use for administrator privileges (4 to 15 alphanumeric characters). • User Name/User Password Enter the user name and password to use for general user privileges (4 to 15 alphanumeric characters).

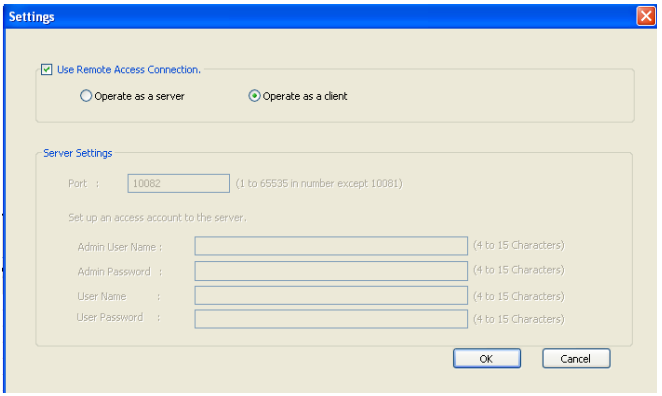
Note

- Available functions differ for administrator privileges and general user privileges (see page 111).
- You cannot use remote access until you configure the administrator or general user settings.
- Clear the [Use Remote Access Connection] check box to use the program as a normal recording software.
- To use remote access via the Internet, configure a port for port forwarding. For details on configuring port forwarding, see your router's documentation.

[Remote Client Settings (remote client function)]

Configure the following settings after installing this software on a PC to be used as a remote client.

1. Select [Remote Access] → [Settings] on the menu bar.
2. Select the [Use Remote Access Connection] check box on the [Settings] screen.
3. Select [Operate as a client] and click [OK].



4. Click [Yes].

- After you restart the program, it will operate as a remote client.

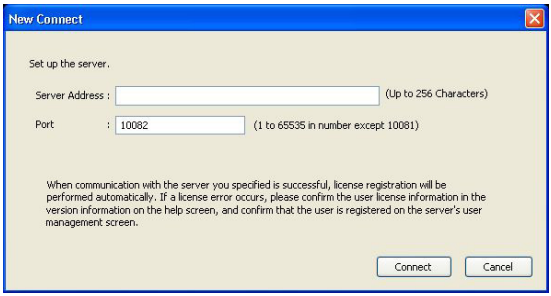
Note

When operating as a remote client, is not displayed in the notification area.

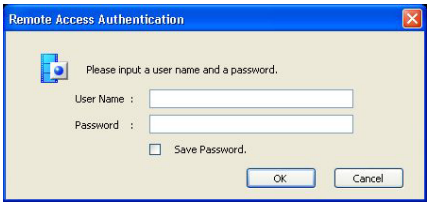
[New Connection (remote client function)]

1. Select [Remote Access] → [New Connect] on the menu bar.

2. Enter the Server Address (IP address or domain name) and port number of the remote server, and then click [Connect].



- The [Remote Access Authentication] page will be displayed when the remote server connection is successful.



3. Enter the user name and password configured for the remote server and click [OK].
   - If you enter the administrator name and password, the client connects a remote server with administrator privileges. If you enter the general user name and password, the client connects a remote server with general user privileges. See the following table for differences between administrator and general user privileges.

Note

- The first time you connect to a remote server, the remote client registration code is automatically registered on the client control page of the remote server.
- Only one remote client can be connected to a remote server at a time. You cannot connect to a remote server if another client is already connected. An error message is displayed if you try to connect to a remote server if another client is connected.

Functions available for remote access

Function name	Administrator privileges	User privileges	Simultaneous launch*1
Multi-Monitoring			
Camera Image	O	O	O
Change the camera layout	O	X	X
Change the Image display format	O	X	X
Switch page	O	O	O
Start/stop recording	O	X	O
Camera operations	O	O	O
Audio mute	O	O	O
Enable/disable	O	X	X
Multi-Playback			
Playback, Stop, etc.	O	O	O
Change the camera layout	O	X	X
Change the Image display format	O	X	X
Recorded Images			
Search	Δ*2	Δ*2	O
Conversion	X*3	X*3	X
Copying	O	X	X
Delete files	O	X	X
Change the keyword	O	X	X
Image information display	O	O	O
Settings			
Basic Settings (Destination Folder)	X	X	X
Basic Settings (Destination Hard Disk Space)	O	X	X
Basic Settings (Limit the destination recording capacity)	O	X	X
Basic Settings (Connection method to the camera)	O	X	X
Proxy server settings	O	X	X
Multi-Monitoring	O	X	X
Multi-Playback	O	X	X
Navigation	O	X	X

Function name	Administrator privileges	User privileges	Simultaneous launch*1
Operation Support (Restore Program)	X	X	X
Operation Support (Log Analysis)	O	X	X
Add/delete cameras	O	X	X
Add/delete timers	O	X	X
Import/Export	O	X	X

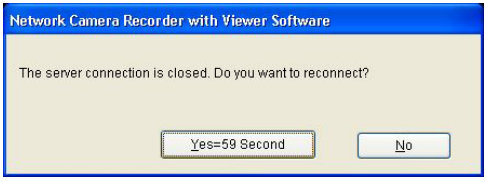
*1 Indicates which functions can and cannot be on a remote server and the remote client at the same time.

*2 User-specified folders cannot be searched.

*3 You cannot perform file conversion, but you can download recorded images (see page 114).

Note

- When settings pages are displayed on the remote server, a remote client cannot use administrator privileges to connect to the settings pages.
- If a connection reset is connected after connecting to a remote server, the following message will be displayed.

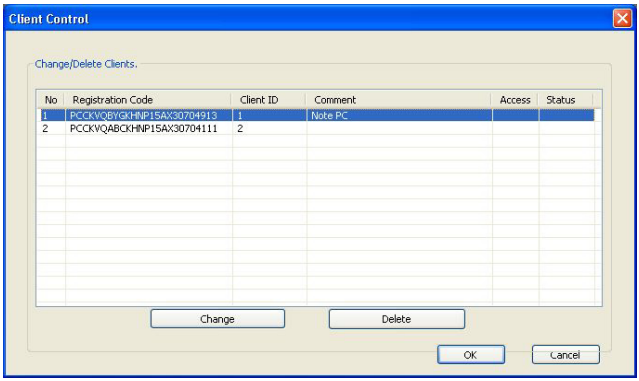


- Click [Yes] to reconnect. Processing continues if the reconnection is successful.
- If you click [No], the unconnected multi-monitoring page is displayed.

[Delete a Remote Client (remote server function)]

Delete a remote client that was registered automatically.

1. Select [Remote Access] → [Client Control] on the menu bar.
2. Select clients you want to delete on the [Client Control] page, and click [Delete].



3. Click [OK].

Note

- You can register up to 50 remote clients.
- Duplicate registration codes cannot be registered.
- To change information for a remote client, select the remote client and click [Change]. After you have modified the information in the settings page, click [OK].
- In the Status column, the connection status (Connected/Unconnected) is displayed. You can see which client is connected.

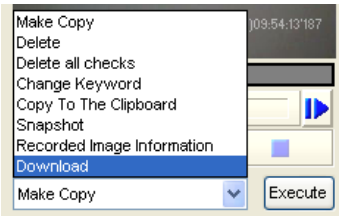
[Download Recorded Images (remote client function)]

Download recorded images from the remote server.

1. Select the images that you want to download in [Playback list].

- See page 89 for how to display recorded images in [Playback list].
- To select multiple images, click the images while pressing [Ctrl] key.

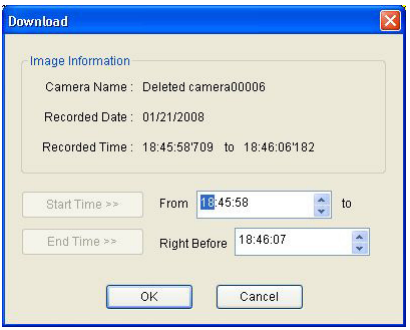
2. Select the [Download] from the editing menu and click [Execute].



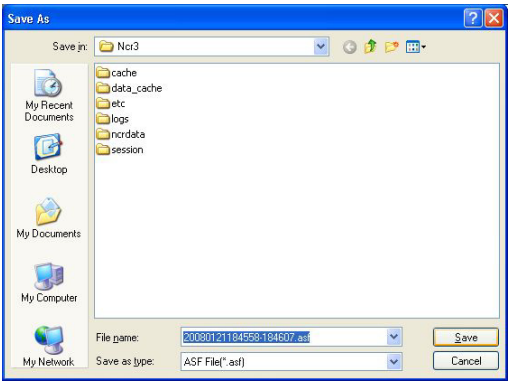
- Available functions differ for administrator privileges and general user privileges (see page 111).
  The above screen is displayed when connected with administrator privileges.

3. To specify a time frame, set start time and end time, and click [OK].

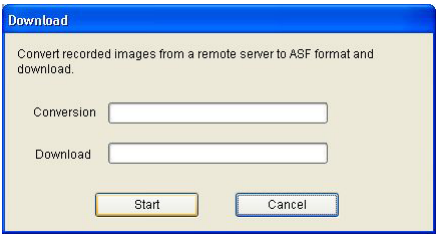
- If you do not set a time frame, all selected images will be converted.
- If multiple recorded images are selected, you cannot specify the time frame.



- The save as window is displayed.

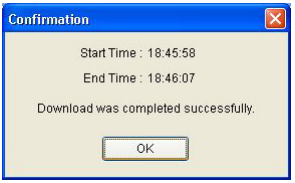


4. Select the destination folder, enter a file name and click [Save].



5. Click [Start].

- Conversion will begin on the remote server.
- Download will begin on the remote client.
- When the download has completed successfully, the following window is displayed.



- When you select multiple recorded images, start time and end time are not displayed.

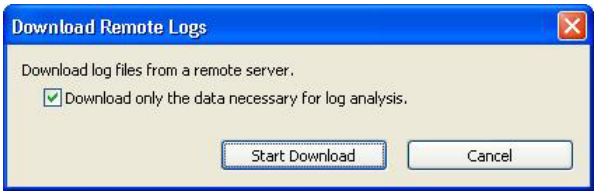
[Analyzing Remote Server Logs (remote client function)]

During remote access, the following menus are added to the log type in the operation support page (see page 127):

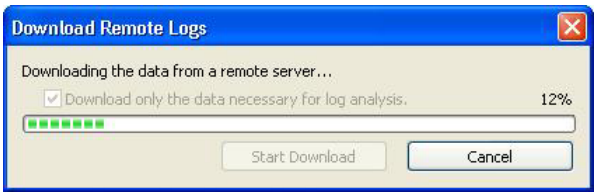
- System Log (server)
- Operation Log 1 (server)
- Operation Log 2 (server)
- Restore Log (server)

Select when analyzing remote server logs.

1. Select [Window] → [Settings] on the menu bar.
2. Select [Preferences] → [Operation Support].
3. Select the date of the logs to analyze, log type.
4. Click [Executing Log Analysis].



5. Click [Start Download].
   - Start downloading.



   - When the download completes, a log analysis result will be displayed.

2.9 Other Features

2.9.1 Audio Transmission

Using this software, you can transmit audio to a camera that supports transmission.

1. Click on the toolbar.
   - Click , and the icon will change to .
   - If the selected camera does not support transmission, icon returns to .
2. Audio is transmitted while displayed.
   - You can transmit audio to focus cameras and selected cameras.
3. Click and finish the transmission.
   - will change to .

Note

- Transmitting audio requires a microphone connected to your PC. You must provide your own microphone.
- During transmission, the volume icon changes to .

  When transmission is terminated, the icon returns to .
- If you are accessing the camera via a proxy server, you cannot use the transmit function.

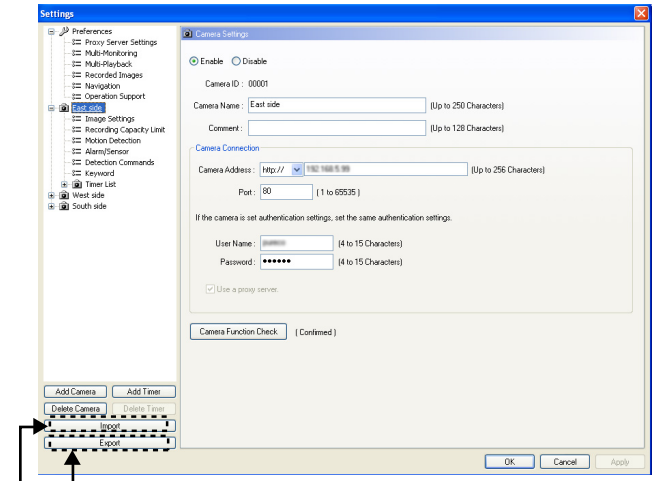
2.9.2 Exporting/Importing the Camera Information

You can import and export the setting information for cameras.

The camera information can be exported for use on another PC with this software installed.

1. Select [Window] → [Settings] on the menu bar.

2. Click [Export] or [Import].



Export button

Import button

Exporting the Camera Information

1. Click [Export].
   - The export file save window is displayed.
2. Enter the destination file name and click [Save].
   - The camera information is exported.

Note

BB-HNP15: Exported file extension is “h15”.
BB-HNP60: Exported file extension is “def”.
BB-HNP11: Exported file extension is “h11”.

Importing the Camera Information

1. Click [Import].
   - The import file selection window is displayed.
2. Select the file to import.
   - To import camera information for BB-HNP60, select [HNP60 Camera Definition File (*.def)] as the file type.
     To import camera information for BB-HNP11, select [HNP11 Camera Definition File (*.h11) as the file type.
     To import the camera information BB-HNP15, select [HNP15 Camera Definition File (*.h15) as the file type.
3. Click [Open].
   - The camera information is imported.

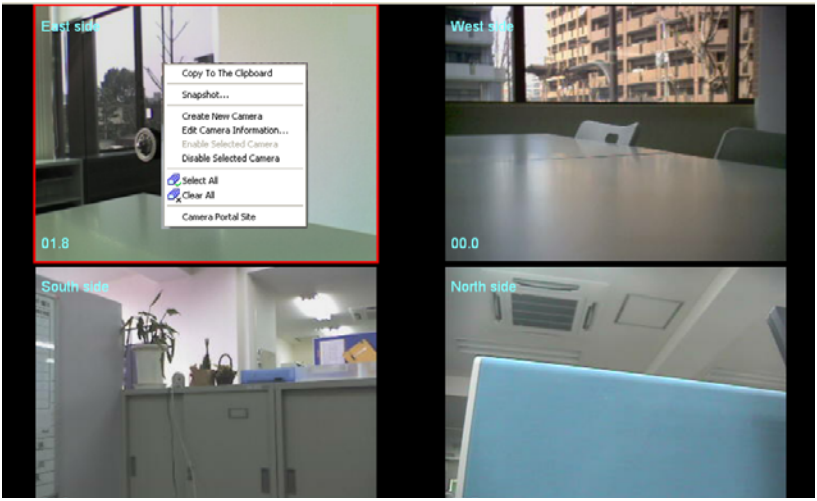
Note

- This software can import camera information for BB-HNP15, BB-HNP11 and BB-HNP60.
  BB-HNP15 and BB-HNP11: All camera information can be imported.
  BB-HNP60: Only basic settings and image settings can be imported.
  BB-HNP60 setting information file is saved in the installation folder.
- If a timer is set for BB-HNP60 Version 1.0, the timer recording method is imported as [Motion detection recording only].

2.9.3 Copying Camera Images

You can copy camera images to the clipboard from the multi-monitoring page.

1. Right-click the image on the multi-monitoring page.
   - The menu window is displayed.
2. Select [Copy To The Clipboard].
   - This software copies the image to the clipboard.



Note

- The clipboard is a place to temporarily save in copying or pasting data. The copied image can be used in the program such as Paint.
- If you select [Snapshot] on the displayed menu, a still image is captured from the displayed image.

2.9.4 Deleting the Registered Cameras from the List

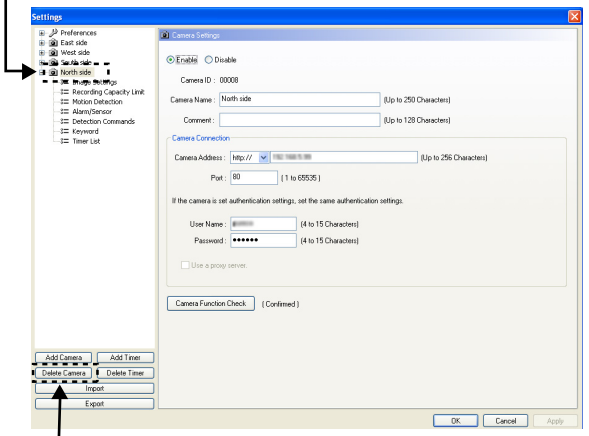
When you delete a camera, you can choose whether or not the camera's recorded images are deleted.

1. Select [Window] → [Settings] on the menu bar.

2. Select the camera to delete.

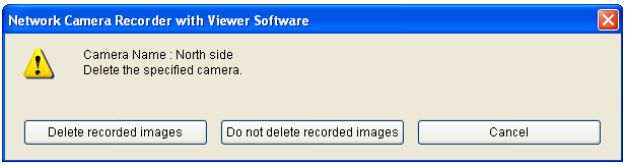
3. Click [Delete Camera].

Select the camera to delete.

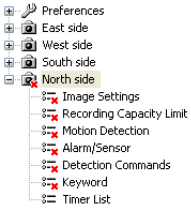


Delete Camera button

4. To delete the recorded images, click [Delete recorded Images].
To keep the recorded images, click [Do not delete recorded images].



- A deletion mark is displayed on the icon of the camera item.

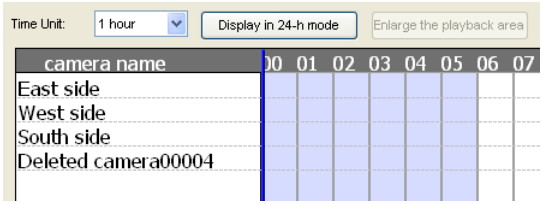


5. Click [OK] or [Apply].

- If you click [OK], [Settings] page will close.
  If you want to delete another camera, click [Apply].

Note

- If you click [Do not delete recorded images], the recorded images are not deleted even after the camera is deleted. “Deleted camera + Camera ID” will be displayed in the recorded images page.



- If you want to delete the recorded images of the deleted camera, select and delete the recorded images from the playback list on the [Recorded Images] page (see page 100), or click [Execute Restore Program] from [Operation Support] (see page 127).

2.9.5 Deleting the Timer Setting

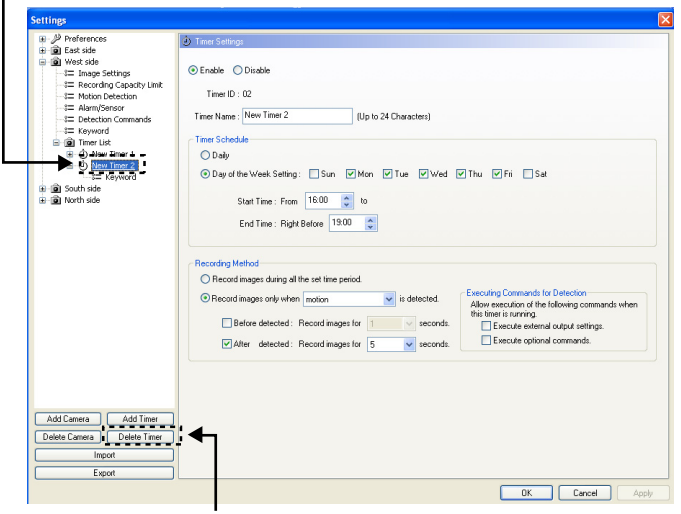
You can delete timer settings.

1. Select [Window] → [Settings] on the menu bar.

2. Select the timer to delete.

3. Click [Delete Timer].

Select the timer to delete.

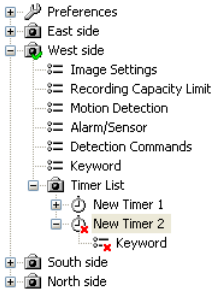


Delete Timer button

- The following confirmation window will be displayed.

4. Click [OK].

- A deletion mark is displayed on the icon of the timer item (see page 44).



5. Click [OK] or [Apply].

- If you click [OK], [Settings] page will close.
  If you want to delete another timer, click [Apply].

2.9.6 Checking the Recording Capacity and Remaining Time

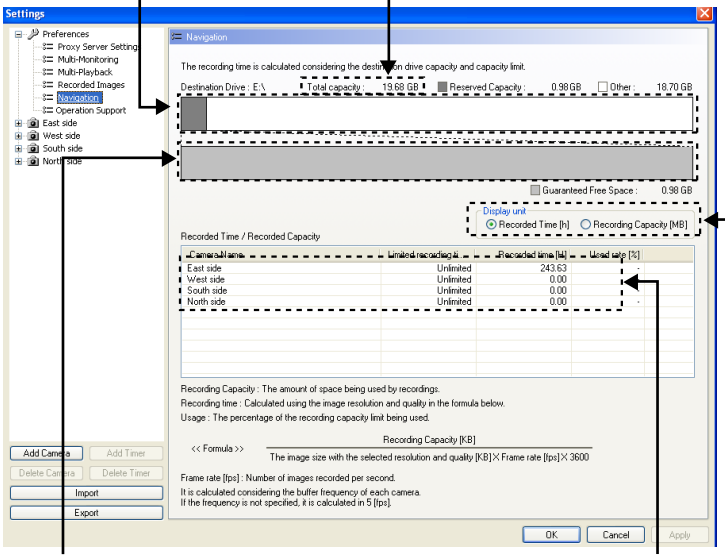
If you set the recording capacity limit, you can confirm the recording capacity and the amount of space used for individual cameras.

1. Select [Window] → [Settings] on the menu bar.
2. Select [Preferences] → [Navigation].
   - The display of this page will differ depending on whether you have limited the recording capacity for the destination drive or for individual cameras.

When you have set a limit for the recording capacity for the destination drive (see page 13)

Displays the total amount of the recording capacity limit and the capacity for the rest of the destination drive.

Displays the total capacity of the destination drive that is selected in Preferences (see page 13).



Displays the total size of the recording capacity limit for individual cameras and the amount of guaranteed free space for the destination drive.

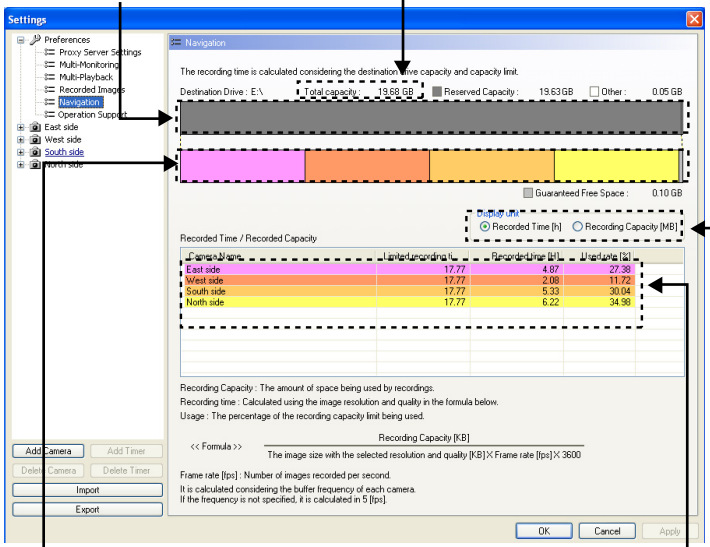
Displays the length (hours) or size (MB) of the recorded images and the percentage of the recording capacity being used for each camera.

You can change the display unit of the Recorded Time/Recorded Capacity (see page 126).

When you have set a limit for the recording capacity for the individual cameras (see page 26)

Displays the combined size of the recording capacity limit for individual cameras and the capacity for the rest of the destination drive.

Displays the total capacity of the destination drive that is selected in Preferences (see page 13).



Displays the recording capacity limit for each individual camera, and the guaranteed free space for the destination drive.

Displays the limited recording time (capacity), the length (hours) or size (MB) of the recorded images and the percentage used for each camera.

You can change the display unit of the [Recorded Time]/[Recorded Capacity] list.

When you have selected [Recorded Capacity] from display unit.

Camera Name	Recording Capacity...	Recording Capacity...	Used rate [%]
East side	5000	1369	27.38
West side	5000	586	11.72
South side	5000	1502	30.04
North side	5000	1749	34.98

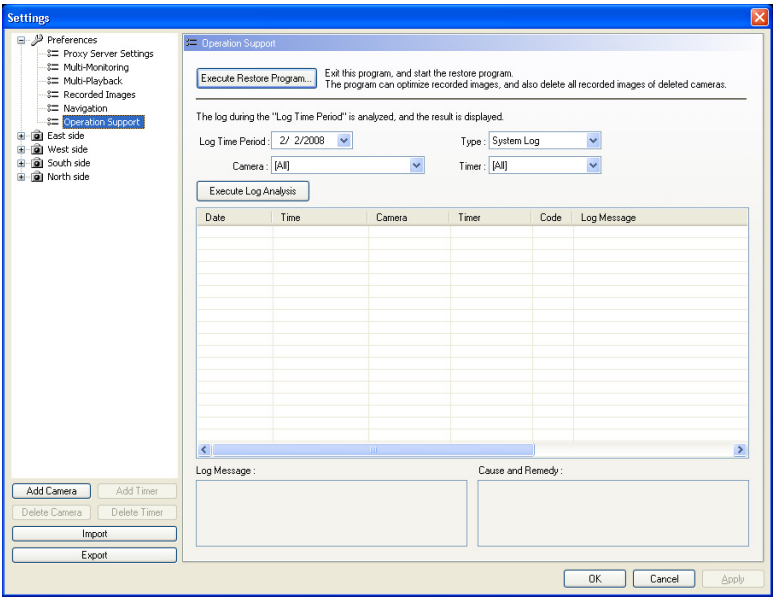
2.9.7 Executing Restore Program and Log Analysis

You can execute the restore program and log analysis.

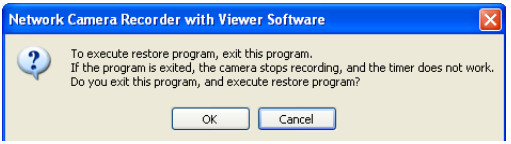
Executing the restore program

Executing the restore program optimizes recorded images and deletes the recorded images of deleted cameras.

1. Select [Window] → [Settings] on the menu bar.
2. Select [Preferences] → [Operation Support].
3. Click [Execute Restore Program] at the [Operation Support] page.

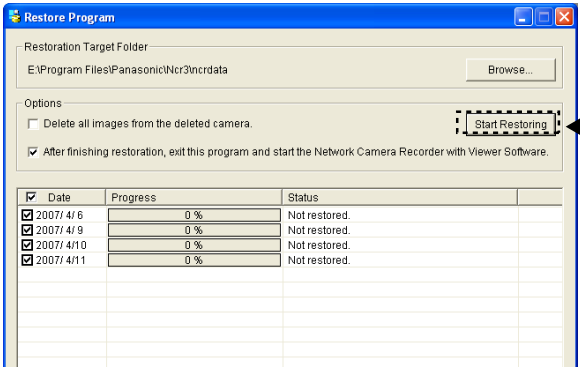


4. Click [OK].
   - To execute the restore program, you must first exit this software.



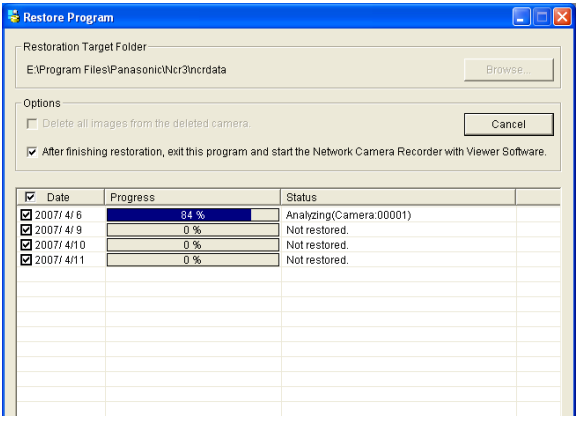
5. Select the destination folder to restore and select the option that you want to perform, then click [Start Restoring].

- If you clicked [Do not delete recorded images] when you deleted a camera, the recorded images will not have been deleted (see page 121).
  If you select [Delete all images from the deleted camera] and click [Start Restoring], all the recorded images from deleted cameras will be deleted.
- To restart the software after the restore program has finished, select [After finishing restoration, exit this program and start the Network Camera Recorder with Viewer Software].



Start Restoring button

- When you click [Start Restoring], the restore program is started.

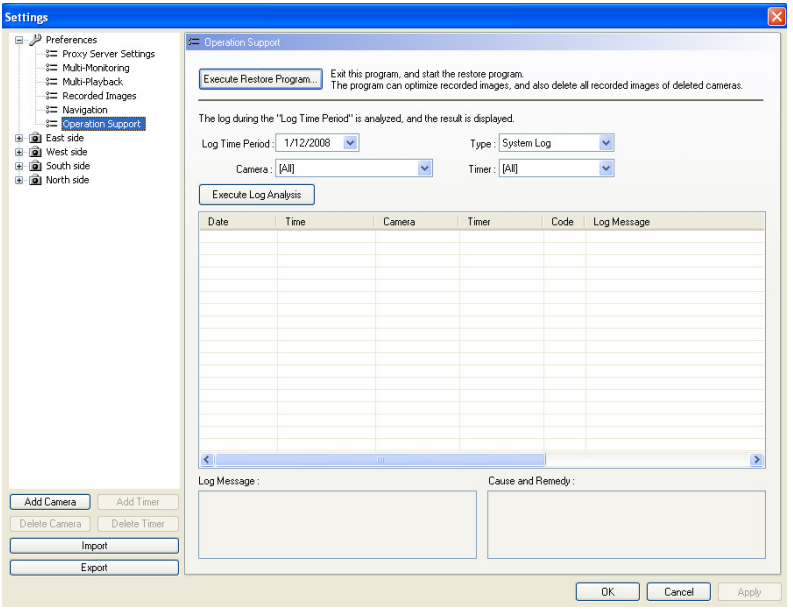


- Restoration is completed.

Executing log analysis

By executing log analysis, you can display the name, date, cause and solutions for cameras in which an error occurred.

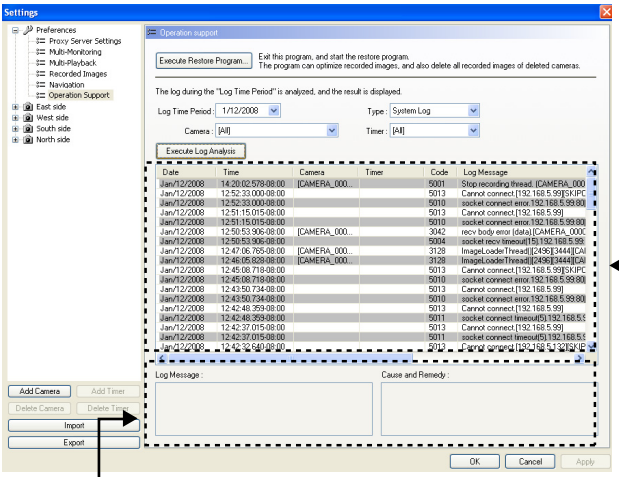
1. Select [Window] → [Settings] on the menu bar.
2. Select [Preferences] → [Operation Support].
3. Select the date of the logs to analyze, log type, camera name and timer name.
4. Click [Executing Log Analysis].



[List of log type]

Log type	Description
System Log	Program execution log
Operation Log 1	Log for operation window performance.
Operation Log 2	Log for interaction between program execution and operation window.
Restore Log	Log for repair program.

- Displays the analysis results.



If you select a log from the log list, the error contents and the measures taken will be displayed.

Log list
Analysis result are displayed.

2.10 Specifications

The recommended number of cameras that you can register, monitor and record simultaneously differs depending on the specifications of your computer.

See Table 1 (see page 132) and Table 2 (see page 133) for details.

Note

- Table 1 shows the required specifications for a PC when using the BB-HCM515A network camera with the following settings: Image quality: Standard; Audio recording setting: Audio and Image; Multi-monitoring frame rate: 2 frames/1 second; Multi-playback frame rate: 2 frames/1 second; Transparency of Image Information: Not specified.

  Table 2 shows the required specifications for a PC when using the BB-HCM515A network camera with the following settings: Image quality: Standard; Audio recording setting: Audio and Image; Multi-monitoring frame rate: not specify; Multi-playback frame rate: not specify; Transparency of Image Information: Not specified.

  However, the values are only estimates, and actual values will differ depending on the recording method and system configuration.
- If you use other applications while operating this software, the CPU will have a higher load, and performance of this software will be affected. For best results, do not run other software while operating this software.
- When using the MPEG-4 format, the multi-monitoring frame rate and CPU usage will be higher, possibly resulting in unstable/unreliable performance. When using MPEG-4, set a frame rate for the multi-monitoring page.

Table 1

		Connection method/resolution			
		JPEG		MPEG-4	
		320 x 240	640 x 480	320 x 240	640 x 480
CPU: Pentium®4 2.6 GHz Memory: 512 MB OS: Windows XP	Monitoring frame rate	2 frames/1 second	2 frames/1 second	2 frames/1 second	2 frames/1 second
	Registration number	2	2	7	2
	Simultaneous recording	2	2	7	2
	Multi-monitoring number	2	2	7	2
	Multi-monitoring layout	2 x 2	2 x 2	3 x 3	2 x 2
	Playback frame rate	2 frames/1 second	2 frames/1 second	2 frames/1 second	2 frames/1 second
CPU: Intel Core™ 2 Duo 2.1 GHz Memory: 1 GB OS: Windows XP	Monitoring Frame Rate	2 frames/1 second	2 frames/1 second	2 frames/1 second	2 frames/1 second
	Registration number	13	9	18	6
	Simultaneous recording	13	9	18	6
	Multi-monitoring number	13	9	18	6
	Multi-monitoring layout	4 x 4	3 x 3	5 x 5	3 x 3
	Playback frame rate	2 frames/1 second	2 frames/1 second	2 frames/1 second	2 frames/1 second
CPU: Intel Core 2 Duo 2.1 GHz Memory: 2 GB OS: Windows Vista Video Card: ATI Radeon® X1300	Monitoring Frame Rate	2 frames/1 second	2 frames/1 second	2 frames/1 second	2 frames/1 second
	Registration number	12	10	27	14
	Simultaneous recording	12	10	27	14
	Multi-monitoring number	12	10	27	14
	Multi-monitoring layout	4 x 4	4 x 4	6 x 6	4 x 4
	Playback frame rate	2 frames/1 second	2 frames/1 second	2 frames/1 second	2 frames/1 second

Table 2

		Connection method/resolution	
		JPEG	
		320 x 240	640 x 480
CPU: Pentium4 2.6 GHz Memory: 512 MB OS: Windows XP	Monitoring frame rate	Not specify	Not specify
	Registration number	1	1
	Simultaneous recording	1	1
	Multi-monitoring number	1	1
	Multi-monitoring layout	1 x 1	1 x 1
	Playback frame rate	Not specify	Not specify
CPU: Intel Core2 Duo 2.1 GHz Memory: 1 GB OS: Windows XP	Monitoring frame rate	Not specify	Not specify
	Registration number	6	4
	Simultaneous recording	6	4
	Multi-monitoring number	6	4
	Multi-monitoring layout	3 x 3	2 x 2
	Playback frame rate	Not specify	Not specify
CPU: Intel Core2 Duo 2.1 GHz Memory: 2 GB OS: Windows Vista Video Card: ATI Radeon X1300	Monitoring frame rate	Not specify	Not specify
	Registration number	9	6
	Simultaneous recording	9	6
	Multi-monitoring number	9	6
	Multi-monitoring layout	3 x 3	3 x 3
	Playback frame rate	Not specify	Not specify

2.11 Troubleshooting

Problem	Cause and Remedy
The camera image is not displayed.	• The camera is not powered up. → Turn the camera on. • The camera IP address is incorrect. → Set the proper IP address at the basic settings on the preferences page. • The authentication is required for the camera. → Set the proper user name and password at the basic settings on the preferences page. • Network to which your PC is connected is not working. → Confirm that the network is working. • The network is congested. → Pages may not be displayed immediately. Wait for a while. • The proxy setting is incorrect. → If the camera cannot be accessed without a proxy server, the proxy setting should be set on this software. Check [Use a proxy server] and set the proxy settings at proxy server settings on the preferences page. • There are more than 4 connections to the same camera using this software. → There is a limit to the number of connections to the same camera using this software (including BB-HNP11). If you select [Audio and images are sent using one connection] on the basic settings page, do not make more than 4 connections to the same camera. If you are making more than 4 connections, select [Images and audio are connected separately].
"Register the license key." is displayed on the multi-monitoring page.	• The license registration is not performed. → Perform the license registration entering registration code and license key at [Help]→[License Registration] on the menu bar.

Problem	Cause and Remedy
Timer recording is not working.	• The day of the week is not checked at [Day of the Week Setting] on the timer settings page. → Check the day of the week to enable timer recording. • Timer is disabled. → Select [Enable] at timer setting on the timer settings page.
You cannot pan or tilt the camera.	• Pan/tilt operation is not permitted on the camera's setting. → Permit the pan/tilt operation on the camera's setting. • The camera does not support pan/tilt operation.
This software is unstable or does not work.	• Your PC specification does not meet the requirement. → Close other applications.
The audio cannot be listened during monitoring.	• The camera does not support audio. → The camera should support audio. • Microphone is not properly connected. → Confirm that microphone is properly connected. • Volume setting on your PC is muted or set to minimum. → Adjust the volume on the volume control window on your PC. • The speaker is malfunctioning. → Confirm that the speaker is working.
Audio cannot be listened while viewing recorded images of the camera with audio.	• [Image Only] is selected at [Audio Recording Settings] on the image settings page. → If [Image Only] is selected, the audio is not recorded. Select [Audio and Image] to record audio.
Audio is not synchronized with images on the monitoring or playback.	• Audio delays 1 or 2 seconds after the image. Audio may be interrupted or the image may be paused. This is not a problem.
The resolution and image quality control do not function with this software.	• The resolution and image quality control set on the camera do not function with this software.

2.12 Error Message List

License Registration

Message	Cause and Remedy
License registration is complete.	• License registration completed normally.
The registration information was incorrect. Check the registration code and license key and try again.	• The registration information was incorrect. → Check the registration code and license key and try again.
Enter "Registration Code".	• Registration Code space was blank. → Follow the instruction message.
Enter "License Key".	• License Key space was blank. → Follow the instruction message.

Preferences

Message	Cause and Remedy
Basic Settings	
Enter a number in one-byte character in "Guaranteed Destination Hard Disk Space".	→ Follow the instruction message.
Enter "Guaranteed Destination Hard Disk Space".	• Guaranteed Destination Hard Disk Space was blank. → Follow the instruction message.
"Guaranteed Destination Hard Disk Space" should be between 100 and 50000.	• A number not between 100 and 50000 was entered in the Guaranteed Destination Hard Disk Space blank. → Follow the instruction message.
"Guaranteed Destination Hard Disk Space" should be less than the current free space (*** MB).	• Guaranteed Destination Hard Disk Space is larger than the free space on the drive. → Follow the instruction message.

Message	Cause and Remedy
Set Destination Recording Capacity Limit in the range of 1 GB to *** GB (Drive capacity - Guaranteed Destination Hard Disk Space).	• Destination Recording Capacity Limit is larger than (Drive capacity - Guaranteed Destination Hard Disk Space). → Follow the instruction message.
“Limit the recording capacity” is set for each camera. Do you want to disable these settings and enable the "Limit the destination recording capacity" setting?	• [Limit the destination recording capacity] and [Limit the recording capacity] cannot be used simultaneously. → Follow the instruction message.
Enter a number in one-byte character in "Destination Recording Capacity Limit".	→ Follow the instruction message.
Enter "Destination Recording Capacity Limit".	• Destination Recording Capacity Limit was blank. → Follow the instruction message.
If the connection method is changed, all cameras will be reconnected. While reconnecting, recording will temporarily be stopped. Do you want to proceed?	→ Follow the instruction message.
The specified "Destination Folder" is incorrect.	• The pass of the destination folder was more than 128 characters. → Follow the instruction message.
Proxy Server Settings	
Enter "Proxy Server Address".	• [Use a proxy server] is checked and the Proxy Server Address space was blank. → Follow the instruction message.
Enter a number in one-byte character in "Port".	→ Follow the instruction message.
"Port" should be between 1 and 65535.	• A number not between 1 and 65535 was entered in the Port blank. → Follow the instruction message.
Enter English one-byte character in "Proxy Server Address".	→ Follow the instruction message.

Message	Cause and Remedy
Enter English one-byte character in "Proxy User Name".	→ Follow the instruction message.
Enter English one-byte character in "Proxy Password".	→ Follow the instruction message.
Do you apply the proxy settings to all cameras? But IPv6 address cameras are excepted.	• You checked [Use a proxy server] at proxy server settings on the preferences page. (If no cameras are registered, this message will not be displayed.) → Follow the instruction message.
"Port" is already set on the proxy server settings. Cannot input port number over again in the "Proxy Server Address". Check the port number and try again.	• You set a port number for both the "Proxy Server Address" and the "Port". → Follow the instruction message.
The proxy server could not be authenticated. The IP address and port number settings may be incorrect. Do you want to keep these settings?	• The proxy server cannot be accessed. → Check the address and port number of the proxy server.
The proxy server authentication is not available. Enter the correct user name and password, and try again.	• This software does not pass the proxy authentication. → Check the user name and password of the proxy server.
IPv6 connection is not supported for proxy server. Set the IPv4 address or URL of the IPv4 domain name service.	→ Follow the instruction message.
Multi-Monitoring	
If [Total Page] is set as [1], [Switch the multi pages in order] cannot be specified.	• This function is available when there are multiple pages. → Follow the instruction message.
All frames cannot be selected.	• You cannot select all of the frames when enlarging an image frame. → Follow the instruction message.

Message	Cause and Remedy
The aspect ratio is incorrect.	• When you enlarge an image frame, maintain the aspect ration when selecting cells. → Follow the instruction message.
Enlarged cells may not overlap.	• You cannot select an already enlarged cell. → Follow the instruction message.
This color has already been set. Select a different color.	→ Follow the instruction message.
Multi-Playback	
This color has already been set. Select a different color.	→ Follow the instruction message.
Recorded Images	
This color has already been set. Select a different color.	→ Follow the instruction message.
Operation Support	
To execute restore program, exit this program. If the program is exited, the camera stops recording, and the timer does not work. Do you exit this program, and execute restore program?	• This program and the restore program cannot execute simultaneously. → Follow the instruction message.
The restore program stopped processing at the following image. Please execute the restore program again. [Folder] *** [Date] mm/dd/yyyy	→ Follow the instruction message.
Failed to get the result from the recording-capacity database. Try again after a while.	→ Follow the instruction message.

Camera Settings

Message	Cause and Remedy
Camera Settings	
Enter a number in one-byte character in "Port".	→ Follow the instruction message.
Enter "Camera Name".	• The Camera Name space was blank. → Follow the instruction message.
Enter "Camera Address".	• The Camera Address space was blank. → Follow the instruction message.
Enter English one-byte character in "Camera Address".	→ Follow the instruction message.
"Port" should be between 1 and 65535.	• A number not between 1 and 65535 was entered in the Port blank. → Follow the instruction message.
Enter English one-byte character in "User Name".	→ Follow the instruction message.
Enter English one-byte character in "Password".	→ Follow the instruction message.
"Camera Name" should be 250 characters or less.	• The Camera Name was more than 250 characters. → Follow the instruction message.
"Comment" should be 128 characters or less.	• The Comment was more than 128 characters. → Follow the instruction message.
Camera Name: *** Delete the specified camera. • "****" = Camera Name	→ Follow the instruction message.
Port is already set on the camera settings. Cannot input port number over again in the "Camera Address". Check the port number and try again.	• You can not set port number to both camera address and port space. → Follow the instruction message.

Message	Cause and Remedy
Connection to the camera cannot be confirmed. The IP address, port number, proxy settings may be incorrect. Do you save them?	• The camera cannot be accessed. → Follow the instruction message.
Connection to the camera could not be confirmed. The IP address, port number, or proxy settings may be incorrect. Check your settings and try again.	• The camera cannot be accessed. → Follow the instruction message.
The camera authentication is not available. Enter the correct user name and password, and try again.	• This software do not pass the camera authentication. → Follow the instruction message.
Some settings are unavailable because the functions of the selected camera have not been confirmed. Click the [Camera Function Check] button and check the functions.	→ Follow the instruction message.
Cannot use a proxy server to the IPv6 camera address. To use a proxy server, set the IPv4 address or URL of the IPv4 domain name service for the camera.	→ Follow the instruction message.
Image Settings	
If using the MPEG-4 format, the recording frequency setting, motion detection recording and alarm/sensor recording are not available.	→ Follow the instruction message.
Motion detection recording is used in the timer [XXXX] for the camera. Change the timer settings first, then select the MPEG-4 format. • "XXXX" = Timer Name	→ Follow the instruction message.

Message	Cause and Remedy
The MPEG-4 format cannot be used with the recording frequency or alarm/sensor recording settings. Disable the recording frequency and alarm/sensor recording settings first, then select the MPEG-4 format.	• If using the MPEG-4 format, the recording frequency setting, alarm/sensor recording are not available. → Follow the instruction message.
The selected camera does not support audio. Set the Recording Setting to [Image Only].	• The camera is not supporting audio, but the image setting is set to audio and image. → Follow the instruction message.
The selected camera does not support [1280x1024] resolution. The resolution is temporarily changed to [320x240]. Change it to the proper value.	• When registering a camera that does not support 1280x1024 resolution. → Follow the instruction message.
The selected camera does not support MPEG-4 format. The format is changed to JPEG.	→ Follow the instruction message.
The time settings for "Before detected" and "After detected" are specified on the timer settings. Set the recording frequency shorter than "Before detected" and "After detected" setting.	→ Follow the instruction message.
The time settings for "Before detected" and "After detected" are specified on the motion detection. Set the recording frequency shorter than "Before detected" and "After detected" setting.	→ Follow the instruction message.
The time setting for "Before detected" and "After detected" are specified on the alarm/sensor. Set the recording frequency shorter than "Before detected" and "After detected" setting.	→ Follow the instruction message.

Message	Cause and Remedy
Recording Capacity Limit	
Enter a number in one-byte character in "Recording Capacity Limit".	→ Follow the instruction message.
Enter "Recording Capacity Limit".	• The Recording Capacity space was blank. → Follow the instruction message.
"Recording Capacity Limit" should be between 100 and 500000.	• A number not between 100 and 500000 was entered in the Recording Capacity blank. → Follow the instruction message.
Set "Recording Capacity Limit" in the range of XXX MB to XXX MB (Drive capacity - Guaranteed Destination Hard Disk Space).	• Recording Capacity for individual cameras is larger than (Drive capacity - Guaranteed Destination Hard Disk Space). → Follow the instruction message.
“Limit the destination recording capacity” is set on the preferences page. Do you want to disable this setting and enable the "Limit the recording capacity" setting for each camera?	• [Limit the destination recording capacity] and [Limit the recording capacity] cannot be used simultaneously. → Follow the instruction message.
Motion Detection/Alarm	
The MPEG-4 format does not support motion detection recording. Do you want to change the format to JPEG?	• If using the MPEG-4 format, the motion detection recording is not available. → Follow the instruction message.
The MPEG-4 format does not support alarm/sensor recording. Do you want to change the format to JPEG?	• If using the MPEG-4 format, the recording frequency setting, alarm/sensor recording are not available. → Follow the instruction message.
The recording frequency on the image setting is specified. Set "Before detected" and "After detected" setting longer than the recording frequency setting.	→ Follow the instruction message.

Message	Cause and Remedy
Timer Setting	
Enter "Timer Name".	• Timer Name space was blank. → Follow the instruction message.
Select a day of the week.	• There is a check in the [Day of the Week Setting] but no check in any of the Day Buttons. → One day or more must be selected.
"Timer Name" should be 24 characters or less.	• Timer Name was more than 24 characters. → Follow the instruction message.
The recording frequency on the image setting is specified. Set "Before detected" and "After detected" setting longer than the recording frequency setting.	→ Follow the instruction message.
Timer Name: *** Delete the specified timer.	→ Follow the instruction message.
Keyword	
"Keyword1" should be 40 characters or less.	• Keyword1 was more than 40 characters. → Follow the instruction message.
"Keyword2" should be 40 characters or less.	• Keyword2 was more than 40 characters. → Follow the instruction message.

Recorded Images

Message	Cause and Remedy
Search	
"Keyword" should be 40 characters or less.	• If Keyword was more than 40 characters. → Follow the instruction message.
Set the start time so that it comes before the end time.	• If start time comes after the end time. → Follow the instruction message.
The search criteria has changed. Do you want to move the screen without searching?	• When you changed the search criteria, but changed screens without searching. → Follow the instruction message.

Message	Cause and Remedy
No matching images were found.	• The recorded images could not be found.
Conversion/Copying	
"Start Time" should be within the recording time.	• The start time is not within the recording time. → Follow the instruction message.
Set the "Start Time" so that it comes before the End Time.	• The start time comes after the end time. → Follow the instruction message.
Set the "End Time" so that it comes after the Start Time.	• The end time comes before the end time. → Follow the instruction message.
"End Time" should be within the recording time.	• The end time is not within the recording time. → Follow the instruction message.
Conversion interval should be between 1 and (the number of images - 1).	• The frequency is not between 1 and (the number of images - 1), or the space was blank. → Follow the instruction message.
Conversion interval should be between 1 and (end time - start time [seconds]).	• The number is larger than the time period between the start time and end time, or the space was blank. → Follow the instruction message.
Conversion interval should be between 1 and 3600.	• The image is recorded for more than 1 hour, but the converted interval is not between 1 and 3600. → Follow the instruction message.
The recorded images could not be found. Search the recorded images and try again.	• There is no recorded images. → Search the recorded images and try again.
A write error has occurred.	• An error has occurred in conversion or the converted file has been opened in another application. → Search the recorded images and try again. → Close other applications and try again.
Conversion is canceled.	• You clicked cancel button while converting the image.
Cannot convert images that are being recorded.	• You cannot convert a recorded image that does not last more than one minute from when it started recording.

Message	Cause and Remedy
The data could not be converted to WAV format. The recorded images do not have any audio data.	You cannot convert the recorded image into WAV format because the recorded images do not have any audio data.
To use this feature, license registration is essential. Perform license registration.	• Some features cannot be used without license registration (JPG, MPG, WAV, ASF, AVI Conversion, Make Copy). → Perform license registration.
The copy operation was canceled.	• You clicked cancel button while copying the image.
Conversion has completed successfully.	• Conversion has completed successfully.
You cannot convert the recorded images to a single JPEG file.	• When converting multiple recorded images to JPEG format, you cannot use [Convert to one file].
Copying has completed successfully.	• Copying has completed successfully.
Deleting	
Do you want to delete the checked images?	→ Follow the instruction message.
No checked recorded images were found. Check the recorded images to delete.	→ Follow the instruction message.
The recorded images cannot be deleted during recording. Stop the recording, and try again.	• You are deleting images during recording. → Follow the instruction message.
The selected recorded image does not exist. Try searching again.	• You manually deleted recorded images. → Follow the instruction message.
Do you want to delete the selected images?	• The recorded images are set to be deleted. → Follow the instruction message.
Some recorded images cannot be deleted. Please try again.	• The file has been opened in another application. → Close other applications and try again.

Message	Cause and Remedy
Change the keyword	
"Keyword1" should be 40 characters or less.	• Keyword1 was more than 40 characters. → Follow the instruction message.
"Keyword2" should be 40 characters or less.	• Keyword2 was more than 40 characters. → Follow the instruction message.
Snapshot	
A snapshot writing error has occurred.	• If a writing error occurred when saving a file, or the file has been opened by another application. → Confirm that you have write permissions for the save destination. → Close the application that opened the file and try again.
Playback	
No checked recorded images were found. Check the recorded images to play.	→ Follow the instruction message.
The current minute of the recording images cannot be played.	→ Follow the instruction message.
Maximum selected number is ***. You must unselect camera, and try again.	→ Follow the instruction message.

Message	Cause and Remedy
Record	
The receiving frame rate from the camera is low and cannot keep the recording frequency. Recording has not been stopped, but the recorded images will not match to the recording frequency setting. This message will be displayed again in the same occasion. If you don't need to display this message again, uncheck the "Display the error message if the program does not work in the specified frequency" in image settings.	→ Follow the instruction message.
"*****" has reached its recording capacity. Delete recorded images. "*****" = • Camera Name • Destination Folder	• The recorded images of the camera or recorded images of the destination folder have reached the limit of recording capacity and recording is stopped. → Delete the recorded images of the camera, or increase the recording capacity. → Change the limit of recording capacity and select [Delete old files and keep recording] (by 1 minute).
Recording cannot be started because "*****" has disabled the camera. Enable the camera in order to start recording. • "*****" = Camera Name	• The camera is disabled. (The disabled camera cannot be recorded.) → Follow the instruction message.

Message	Cause and Remedy
Recording has stopped because either there is insufficient free disk space or the disk cannot be written on. Confirm that there is sufficient free space on the save destination disk and that the save destination folder is in a writable condition, then try recording again.	• The destination free space has reached the limit set on the preferences page, or the save destination folder is not writable and recording is stopped. → **1.** Decrease the save destination free space. **2.** Create enough free space on the destination folder. **3.** Confirm that there is a folder. If there is not, create it. **4.** Check if the folder is writable, and set it writable. **5.** Change the destination folder.
There is only *** MB of free space remaining in Save Destination Folder Disk. Either increase the free space to over 100 MB or select a disk with over 100 MB of free space.	• The save destination free space is less than 100 MB. → Follow the instruction message.
Images could not be acquired for one minute. Confirm the camera connection.	→ Follow the instruction message.

Import/Export

Message	Cause and Remedy
"****" error occurred during importing. "****" = • File Type • File Size • Memory Shortage • Open	• This software cannot import from the file at [Settings]. → The file is broken.

Message	Cause and Remedy
Exporting failed.	• This software cannot export to the file at [Settings]. → Check the permissions for the destination drive/folder.
The number of registered cameras reached the maximum of ** cameras, so importing was canceled. "****" = The number of registered cameras (1 or 64)	• If the maximum number of registered cameras is exceeded during import. → Delete unnecessary cameras.

Other Errors

Message	Cause and Remedy
The total size of the recording capacity limit and the guaranteed hard disk space is larger than the capacity of the destination drive. Check your settings.	→ Follow the instruction message.
Software Startup failed. Restart this software. If situation does not improve after restarting the software, restart your PC.	• This software fails to start the ncrcore3.exe file. → Restart your PC.
Program Error occurred during program execution. If same error message appears after trying again, restart your Windows.	• This software fails to start the ncr3.exe file. → Restart your PC.
If camera is disabled, the connection is broken and the timer and recording functions are also disabled. Is it OK to disable all the selected cameras?	• The camera is disabled. → Follow the instruction message.
The number of registered cameras exceeds the maximum registration number 64. Please delete ** or more cameras and try again.	• The number of registered cameras has reached the maximum limit. → Follow the instruction message.

Message	Cause and Remedy
The file could not be found.	• The Operating Instructions file is not in software folders. (The file may be manually deleted.) → Install this software again.
PDF related applications could not be found. Install Adobe® Reader®.	• Adobe Reader could not be found. → Install Adobe Reader and try again.
The web browser could not be started. Start the web browser and access the following URL. http://*** • "***"=Camera Address	• Web browser could not be started (support information and camera portal site). → Install the web browser (Internet Explorer® 6.0 or later).
Specify a local drive. Although mapping this folder to a network drive allows you to specify this folder, the program may not be performed normally due to your network environment, specifying a network drive is not recommended.	• A network drive or folders on the network were selected as the save destination folder. → Specify a local drive.
"****" cannot be accessed. "****" = • Save Destination Folder • JPEG Conversion Folder • MPEG Conversion File • Import File • Export File	• The folder or file cannot be accessed because the drive cannot be found or the path is not available. → Properly select a folder of file.
When the software is shut down, the camera stops recording. Any set timers will also stop operating. Is it OK to shut down?	• Right-click and select [Exit]. → Follow the instruction message.

Message	Cause and Remedy
The folder path exceeds 100 Characters. Specify a path that is under 100 Characters. [Current Destination Folder] *** • "***"=Destination Folder	→ Follow the instruction message.
There is no access right to the specified folder. Check the folder.	→ Follow the instruction message.

Remote Access

Message	Cause and Remedy
Enter “Server Address”.	→ Follow the instruction message.
Enter “Port”.	→ Follow the instruction message.
Enter a number in one-byte character in "Port".	→ Follow the instruction message.
"Port" should be between 1 and 65535, except for 10081.	• A number not between 1 and 65535 or 10081 was entered in the Port blank. → Follow the instruction message.
Setting is modified, restart of this program is necessary. Is it OK to restart the program?	→ Follow the instruction message.
Enter "Admin User Name".	• The Admin User Name space was blank. → Follow the instruction message.
Enter "Admin Password".	• The Admin Password space was blank. → Follow the instruction message.
Enter "User Name".	• The User Name space was blank. → Follow the instruction message.
Enter "User Password".	• The User Password space was blank. → Follow the instruction message.

Message	Cause and Remedy
Enter a number in one-byte character in "Port".	→ Follow the instruction message.
Failed to connect.	• If a connection to the remote server cannot be established. → Confirm that the remote server is properly running. → Confirm the new connection settings.
Access authentication can not be done. Confirm the user name and password.	• If remote client access cannot be authenticated at the remote server. → Confirm that the remote server is properly running. → Follow the instruction message.
The server connection is closed. Do you want to reconnect?	• Connection to the server was lost due to network congestion (Remote client). → Follow the instruction message.
The number of connections has exceeded the limit. Wait for a moment and try again.	• A remote client has connected to the server while you were trying to connect to the remote server (Remote client). → Follow the instruction message.
Another administrator changed the settings. Wait for a moment and try again.	• Settings were applied while you were configuring remote server settings (Remote client). → Follow the instruction message.
The settings have been changed. Information is being updated now. Please wait.	• Settings were changed during remote access. You will need to reload any modified information (Remote client). → Follow the instruction message.
Another administrator changed the settings. Restart the program.	• Settings were changed while loading ncr3.exe on the remote server (Remote client). → Follow the instruction message.

Message	Cause and Remedy
The server is busy. Wait for a moment and then try again.	• When performing a specific action (e.g., navigation), the server cannot respond to other requests. (Remote client, Remote server) → Follow the instruction message.

2.13 Default Setting List

Items			Default
Preferences	Basic Settings	Destination Folder	Install folder\ncrdata
		Destination Hard Disk Space	100 MB
		Limit the destination recording capacity	-
		Operation when recording capacity reached a limit	Stop all the recordings.
		Destination Recording Capacity Limit	1 GB
		Connection method to the camera	Audio and images are sent using one connection.
	Proxy Server Settings	Use a proxy server	-
		Proxy Server Address	-
		Port	-
		Proxy User Name	-
		Proxy Password	-
	Multi-Monitoring	Monitor Screen Layout	2 x 2
		Page	1
		Total Page	1
		Setting the camera to display	Display the images in the order in which they were registered.
		Click to Center Function	Uses
		Switch the multi pages in order	-
		Image display format	Maintain the aspect ratio.
		Background color-disabled camera	Gray
		Background color-no cameras	Black
		Background color-error cameras	Blue

Items			Default
Preferences	Multi-Monitoring	Set the transparency level	-
		Transparency	50%
		Focus and selected frame width	3
		Focus frame color	Red
		Selected frame color	Blue
		Text color	Black
		Display the camera name	-
		Display the frame rate	-
		Specify the frame rate	2 frames/1 second
		Adjust the monitoring refresh rate when the CPU is highly loaded	When the CPU is loaded more than 80 %, the refresh rate is paused for 15 seconds.
	Multi-Playback	Playback Screen Layout	2 x 2
		Playback position display format	Display timelines as chart
		Image display format	Maintain the aspect ratio.
		Background color-no images	Black
		Set the transparency level	-
		Transparency	50%
		Text color	Black
		Display the camera name	checked
		Display the frame rate	-
		Display the time	checked
		Focus and selected frame width	3
		Focus frame color	Red
		Selected frame color	Blue
		Specify the frame rate	2 frames/1 second

Items			Default
Preferences	Recorded Images	Recording mode colors for graphics on the Recorded Images, Multi-Playback, and Timer List Pages	
		Normal Recording	Light Green (RGB(0.255.0))
		Motion Detection Recording	Yellow (RGB(255.255.0))
		Alarm/Sensor Recording	Red (RGB(255.0.0))
		Playback Options	Play automatically
		Playing List	All
	Navigation	Display unit	Recorded Time [h]
	Operation Support	Execute Restore Program	-
		Restoration Target Folder	Destination Folder
		Delete all images from the deleted camera.	-
		After finishing restoration, exit this program and start the Network Camera Recorder with Viewer Software.	checked
		Execute Log Analysis	-
		Log Time Period	Today's date
		Type	System Log
		Camera	[All]
		Timer	[All]

Items			Default
Settings	Camera Settings	Enable/Disable	Enable
		Camera Name	New Camera
		Comment	-
		Camera Address	http://
		Port	80
		User Name	-
		Password	-
		Use a proxy server	-
	Image Settings	Data Format	JPEG
		Resolution	320 x 240
		Image Quality	Standard
		Recorded Frequency	Not Specify
		Audio Recording Settings	Image Only
		Calculated disk capacity to record	30 days of recording will require
	Recording Capacity Limit	Limit the recording capacity	-
		Operation when the capacity reached the limit	Stop recording
		Capacity Limit	100 MB
		Calculated recording time from the limited capacity	-
	Motion Detection	Motion is not detected during the pan, tilt or zoom operation of the camera.	Motion is not detected.
		Motion Detection Analysis Frequency	0.50 seconds
		Threshold to Start Recording	slightly low
		Cell Sensitivity	Center
		Before detected/ After detected	After detected: Record images for 5 seconds.
		Executing Commands for Detection	-

Items			Default
Settings	Alarm/ Sensor	Set the Alarm1/Sensor Recording	-
		Alarm enable condition	Rising : GND to Open (High)
		Before detected/After detected	After detected: Record images for 5 seconds.
		Executing Commands for Detection	-
		Set the Alarm2 Recording	-
		Alarm enable condition	Rising : GND to Open (High)
		Before detected/After detected	After detected: Record images for 5 seconds.
		Executing Commands for Detection	-
	Detection Commands	Commands for Camera External Output Settings	Short to GND, After 5 seconds, set the external output of the camera to [Open].
		Optional Command	Beep 1000 1000
		Controlling Command Execution	Execute a command only once at the start of recording
	Keyword	Keyword1	-
		Keyword2	-
	Timer list	Display 10 timer simultaneously	-
	Timer Settings	Enable/Disable	Enable
		Timer Name	New Timer
		Timer Schedule	Daily, From 00:00 to Right Before 00:00
		Recording Method	Record images during all the set time period
		Before detected/ After detected	After detected:Record images for 5 seconds
		Executing Commands for Detection	-
		Keyword1	-
		Keyword2	-

Items			Default
Exporting/ Importing	Export	Destination folder	Install folder
		File name	-
		File type	Camera Definition File (*.h15)
	Import	Destination folder	Install folder
		File name	-
		File type	Camera Definition File (*.h15)
Window	Multi-Monitoring	Focus	upper left
	Multi-Playback	Focus	upper left
	Recorded images	Searched Target	Destination Folder
		Time Period Setting	-
		Time Period	from 00:00:00 to Right before 00:00:00
		Weekly Setting	Mon, Tue, Wed, Thu, Fri, Sat, Sun
		Recording Mode	Normal Recording, Motion Detection Recording, Alarm/ Sensor Recording
		Recording Trigger	Timer Recording, Manual Recording
		Keyword	-
		Display timelines as chart	
		Time Unit	1 hour
		Display scale	Display in 24-h mode
		Calender	Today's date
		Playback time	from 00:00:00 to Right before 00:00:00

Items			Default
Window	Recorded images	Playback List	
		Selection	top line
		Playback Screen	The still image at the start time of the selected image is displayed on the playback screen.
Remote Access	Settings	Use Remote Access Connection	-
		Server Settings	-
		Port	10082
		Admin User Name	-
		Admin Password	-
		User Name	-
		User Password	-

For product service

- Panasonic Servicenters are listed in the servicenter directory.
- Call 1-800-272-7033 for the location of an authorized servicenter.
- This Network Camera Recorder is designed for use in the United States of America. Sale or use of this product in other countries/areas may violate local laws.

When you ship the product

- Carefully pack your unit, preferably in the original carton.
- Attach a letter, detailing the symptom, to the outside of the carton.

Symptom

- Send the unit to an authorized servicenter, prepaid and adequately insured.
- Do not send your unit to the Panasonic Consumer Electronics Company listed below or to executive or regional sales offices. These locations do not repair consumer products.

Operating Instructions is subject to change without notice.

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way, Secaucus, New Jersey 07094

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